

Tacoma Narrows Bridge Work Group

Report of Findings & Recommendations

January 5, 2018





State of Washington TRANSPORTATION COMMISSION

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January 5, 2018

Dear Honorable Members of the Senate and House Transportation Committees:

The 2017-2019 Transportation Budget directed the Transportation Commission to create the Tacoma Narrows Bridge (TNB) Work Group, citing a "a need for long-term toll payer relief from increasing toll rates on the Tacoma Narrows Bridge," and to report on findings and recommendations to the Senate and House Transportation Committees. The Work Group met during the 2017 legislative interim and the enclosed Report of Findings and Recommendations presents the results of their work.

As directed by the Legislature, the Work Group consisted of a diverse set of over 20 community and legislative stakeholders from the vicinity of the Tacoma Narrows Bridge. We were impressed and pleased with the commitment by all of the participants to fully engage in the process. The outcome reflects that strong commitment by the work groups participants. As appointed by the Transportation Commission, it was our pleasure to serve as co-chairs of the Work Group.

The findings and recommendations in this report fully represent the collective input and direction provided by the Work Group over the course of their four meetings between August – December 2017. We look forward to discussing this with you during the 2018 Legislative session.

We thank the Transportation Commission and Washington State Department of Transportation staff for their support in coordinating the meetings, for providing the information needed for Work Group decisions, and for drafting this report.

Sincerely,

Commissioner Shiv Batra TNB Work Group Co-Chair

Bruce Beckett, TNB Citizen Advisory Committee Chair

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TNB Work Group Co-Chair



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Executive Summary

Work Group Introduction

The Washington State Transportation Commission (Commission) created the Tacoma Narrows Bridge (TNB) Work Group at the direction of the Washington State Legislature, with authorizing language included in the 2017-2019 biennium transportation budget. In authorizing the Work Group the Legislature cited, "a need for long-term toll payer relief from increasing toll rates on the Tacoma Narrows Bridge." (see p. 12 for the complete budget proviso)

Based on the authorizing language the Work Group defined their mission and objective as follows:

Mission: Long-term toll payer relief from increasing toll rates on the Tacoma Narrows Bridge

Objective: Identify preferred and prioritized policy solutions that address fundamental drivers of TNB toll rate increases, so as to provide long-term toll payer relief for users of the Tacoma Narrows Bridge.

Work Group Participants & Process

In accordance with the the 2017 budget language directing the formation of the Work Group, the Commission cast a broad net for participation. Invited participants included:

- All members of the legislative delegations immediately abutting the Tacoma Narrows Bridge
- Representatives of the Tacoma and Gig Harbor Chambers of Commerce
- Mayors from Gig Harbor, Tacoma, and University Place
- Members of the Kitsap and Pierce County Councils whose districts include the Tacoma Narrows Bridge
- Representation from Pierce Transit.
- Two members of the TNB Citizen Advisory Committee were invited to participate
- One Transportation Commissioner who serves on the Commission's Tolling Subcommittee.

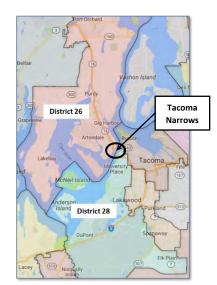


Figure 1

Upon the request of the Work Group, additional representation was added from the following interests: the social services community; the Port Orchard Chamber of Commerce; and the Port Orchard City Council. Representative Jake Fey (District 27, Tacoma) was also added to the Work Group membership. In addition, Randy Boss, member of the TNB Citizen Advisory Committee, was also an active Work Group participant.

The Commission appointed Bruce Beckett, Chair of the TNB Citizen Advisory Committee, and Transportation Commissioner Shiv Batra as Co-Chairs of the Work Group.



The Work Group met four times between August 1, 2017 – December 1, 2017. All meetings took place in either Gig Harbor or Tacoma in an effort to facilitate participation by the local participants.

Work Group participants brought a diverse set of backgrounds and TNB knowledge. To facilitate decision-making, the Work Group meetings were designed to provide information on the TNB facility, performance, and financials with presentations by Commission and WSDOT staff, and to encourage an active discussion between Work Group participants. Below is a summary of meeting tasks:

- Established Work Group mission & intent. (meeting 1)
- Reviewed history of TNB performance, rate-setting, and financial support. (meeting 1)
- Updated and assessed toll payer relief scenarios from the 2014 Joint Transportation Committee's (JTC) Report on TNB Internal Refinance Opportunities. (meeting 1 & 2)
- Identified and advanced for further consideration toll payer relief scenarios from the JTC report and additional scenarios from the Work Group discussion. (meeting 2 & 3)
- Updated analysis based upon current traffic and revenue forecasts and TNB financial plan. (meeting 3 & 4)
- Agreed to problem statement that addresses what is driving TNB toll rate increases (meeting 4)
- Finalized prioritized financial and policy solutions. (meeting 4)
- Reviewed draft report and approved the final report. (done via email)

Summary of Findings

The 2017 budget language instructed the Work Group to "review, update, add to as necessary, and comment on various scenarios for toll payer relief outlined in the 2014 Joint Transportation Committee (JTC) report on internal refinance opportunities for the Tacoma Narrows bridge," and to "submit a report with its preferred and prioritized policy solutions." With this direction, Commission and Washington State Department of Transportation (WSDOT) staff worked with the Work Group to first update and assess the JTC scenarios, and then to establish proposed solutions.

As a foundation for selecting and prioritizing preferred policy solutions, the Work Group agreed to a problem statement and objectives described below.

Problem Statement: \$125 million in remaining debt service increases is driving need for future toll increases.

The TNB Work Group identified the remaining \$125 million in debt service increases (FY 2019-2030) as the primary problem to address for reducing the financial burden of TNB bridge toll payers. While the Work Group is looking to address the future impacts of this problem, it also identifies this as a problem that has contributed to rising toll rates since the opening of the facility in July 2007.



All Costs Forecast to FY 2030 (Actuals thru FY2017) \$120,000 Toll Vendors \$100,000 Replacement Facility Ops& Maint \$80,000 Insurance Other Toll Operation Primary Cost Driver: Escalating Debt Service Costs \$60,000 S Thousands Credit Card Costs Personal Services \$40,000 Salaries and Benefits \$20,000 Toll Vendors 50 FY 2008 FY 2012 FY 2016 FY 2020 FY 2024 FY 2028 ACTUALS FORECAST

Figure 2

The TNB facility is set apart from other Washington State tolling facilities because of its steeply escalating debt service structure, as seen in Figure 2 above. Such a financing structure is not consistent with best practices, and is not supported by the Washington State Office of the State Treasurer as a financing approach going forward. The financing of the bridge relied on toll revenue providing 99% of the funding needed for the construction of the bridge, as well as the associated interest payments and other debt service costs. For comparison, about 72% of the construction costs for the SR 520 bridge (with pontoons) are funded with toll revenues (See Appendix 3). The Work Group sees this as an inequity for TNB toll rate payers and thus recommends future debt service increases that exceed the current debt service costs (FY 2018), be funded by a different source of revenue other than tolls.

Addressing the remaining debt service increases applies lessons learned from the impacts of the Great Recession. During this time, escalating debt service costs drove nearly annual increases in the value of financial obligations paid for with toll revenue. At the same time, traffic volumes and the ability of users to afford tolls decreased. Though driven by global economic crisis, the burden of this loss in potential toll revenues was borne by the TNB toll payers. Providing non-toll revenues to support level debt service costs for the remainder of the repayment schedule will help reduce this burden, and help mitigate the potential of such impacts from future recessions.

The TNB Work Group arrived at this problem statement and conclusion after consideration of the TNB rate-setting history, analysis developed for scenarios developed by the JTC in the 2014 report, analysis of current conditions prepared by Commission and WSDOT Toll Division staff, and additional input from the Work Group members and members of the public attending the work group meetings. Other costs and issues considered are documented in the findings section of this report, and many are included for legislative consideration as additional options to support cost reduction and toll payer relief.

Providing \$125 million in non-toll revenue funding is equivalent to 10% of the total costs remaining over the life of the current bonds (FY2019 – FY2030), which includes the bond payments and the repayment of deferred sales tax immediately to follow the end of the debt service. Under this approach, TNB toll



revenue would continue to pay 90% of the remaining costs. This approach meets the intent of the proviso to provide toll payer relief, while not wholly shifting the burden of the costs away from the TNB toll rate payers.

Objectives for Selecting Scenarios

As the Work Group reviewed and discussed the JTC Scenarios, the participants identified several objectives that they sought to accomplish to ensure their recommendations addressed the policy statement in a way that supports long-term toll payer relief. These objectives guided the Work Group when identifying how to proceed with the JTC Scenarios, and on developing new scenarios. The objectives are as follows:

Maintain toll rates at FY 2018 levels

The Work Group established that maintaining current toll rates would serve to address the impact of historical and future inequity caused by the steeply escalating debt service.

The Work Group considered preliminary assessments of selected scenarios paired with rate increases ranging from \$0.25 - \$0.75, and discussed the need for the Commission to raise rates by FY 2020 if the Legislature did not provide sufficient non-toll revenues for the TNB account. However, the Work Group opted to establish that policy solutions should maintain current toll rates. This meets the direction of the proviso to provide long-term toll payer relief for users of the TNB facility, and sends a clear message to rate payers that the state recognizes the burden of increasing toll rates caused primarily by the steeply escalating debt service schedule.

Pursue a transfer of funds with no repayment from toll revenues

In pursuing funding without repayment from toll revenues, the Work Group sought solutions that would not extend the burden of tolling longer than existing repayment schedules, while ensuring the capacity to repay the deferred sales tax by no later than FY 2032 as required under current law (RCW 47.46.060).

The Work Group made this choice after considering preliminary assessments of selected scenarios with loan repayment options for FY 2031 – FY 2032, and after discussing the potential for extending that repayment past FY 2032. For example, while toll revenue was projected to be available in FY 2031 – FY 2032 to repay non-toll revenue funding provided for selected scenarios, the Work Group sought to retain the opportunity to repay the deferred sales tax in FY 2031. The Work Group also cited the costs of extending tolling that would add to the overall burden on TNB rate payers.

<u>Seek funding to address immediate financial needs in the next 1-2 biennia to avoid near-term toll</u> increase

Without added financial support from non-toll revenue sources, WSDOT and the Commission project TNB toll rates will need to be increased in FY 2020. This will be necessary to address escalating costs, including debt service increases, repair & replacement costs, and vendor operations costs.

Establish long-term intent to address increasing debt service costs

¹ While analysis based on November 2016 transportation forecast indicated full repayment would be possible (as presented to Work Group), resulting assessment based on the November 2017 transportation forecast indicates that additional repayment may be necessary. See appendix for updated JTC Scenario results.



The Legislature should declare or indicate in law its intent to provide funding to address the problem statement of increasing debt service costs, while supporting the capacity to maintain current toll rates.

Direction from Work Group on Updated JTC Scenarios

With the problem statement and objectives in mind, the Work Group did not move forward with all elements of the seven JTC Scenarios. The Work Group did not to fully pursue any of the JTC Scenarios because they sought to recommend:

- Solutions that did not include repayment of non-toll revenue provided to the TNB account.
- Solutions that fully provide the funding needed to ensure toll rates would not increase from today's levels (FY 2018).

Though not electing to fully move forward with any of the JTC Scenarios, the Work Group did select elements from two JTC scenarios that contributed to recommended funding solutions:

• JTC Scenario 5: Loan to keep blended toll no higher than \$6.00, with loan repaid by toll payers beginning in 2031.

Work Group Action: Pursued a core element of this scenario in seeking non-toll revenues to maintain a specific toll rate target. However, instead of targeting a blended toll rate of no greater than \$6.00, the Work Group sought to maintain rates at the current blended toll rate of about \$5.25. The Work Group also sought these non-toll revenues as shared costs instead of as a loan.

 JTC Scenario 6: Loan to offset effect of increasing debt service, with loan repaid by toll payers beginning in 2031.

Work Group Action: Pursued a core element of this scenario in seeking non-toll revenues to offset the effect of increasing debt service. However, the Work Group sought these non-toll revenues as shared costs instead of as a loan.

Elements of JTC Scenario 3, to fund Repair and Replacement costs, and JTC Scenario 4, to fund non-debt service costs also contributed to additional funding considerations included in the Work Group recommendations.

New Work Group Scenarios

The Work Group's consideration of new scenarios began with the preferred elements of the JTC Scenarios described above. The Work Group considered total remaining costs for possible new scenarios, and costs over the first two biennium (FY 2020 – 2023). Additional consideration and assessment was given to pairing possible scenarios with a recommended toll rate increase to reduce the size of the funding request, but the Work Group would later rule out this option.

As the Work Group assessed potential scenarios, it sought to provide for the \$125 million in remaining costs for debt service increases described in the problem statement, while ensuring distribution of these funds across future fiscal years in a way that best reduces the burden of rising toll rate increases, as directed by the proviso.

Based on these considerations, the Work Group developed the following new scenario and implementation options:



<u>Provide Non-Toll Revenue to Offset Future Debt Service Increases, While Enabling Toll Rates to Stay at Current Levels (FY 2018)</u>

The Work Group identified this scenario to provide a long-term plan for addressing future debt service increases while keeping toll rates at current rates. The result was a scenario requesting up to \$125 million to offset future debt service increases, but allocated across the remaining years of tolling at levels that keep toll rates at current levels (FY 2018). This option directly addresses both the Work Group's problem statement, and the legislative direction to provide long-term toll payer relief from increasing toll rates.

Figure 3 below shows the distribution of this funding over the remaining term of the debt service (through FY 2030). As noted, based on current forecasts and assumed Commission policies for the TNB account sufficiency, the projected funding need is less than the full \$125 million (\$120.7 million). However, the Work Group requests up to the full \$125 million in alignment with the costs of the remaining debt service increases, and in recognizing the potential for increases in funding needs over currently projected values.

Funding Needs to Maintain Current Toll Rates				
Biennium	Funding Need			
17-19 Biennium	(No Rate Increase Necessary)			
19-21 Biennium	\$25,990,125			
21-23 Biennium	\$16,267,021			
23-25 Biennium	\$22,235,942			
25-27 Biennium	\$20,561,511			
27-29 Biennium	\$28,842,292			
29-31 Biennium	\$6,813,236			
31-33 Biennium	(No Rate Increase Necessary)			
1st 4 years	\$42,257,147			
1st 6 years	\$64,493,089			
Total	\$120.710.128			

Figure 3

To implement this scenario, the Work Group recommended two funding options, and related policy bill options, as will be described in the recommendations.

Additional Considerations

In the course of assessing scenarios, the TNB Work Group identified several JTC scenario elements and other considerations that would not fully address the problem statement and objectives, but would support cost reduction and toll payer relief. These are included in the Recommendations Section of this report.

Recommendations

The TNB Work Group recommendations listed below follow from the established problem statement, objectives, and JTC scenario analysis. They are also consistent with the mission and intent for the Work Group established by the Legislature.

<u>Recommended Funding Option 1</u>: Provide \$125 million in the 2018 or 2019 legislative session to fund debt service increases for FY 2019 – FY 2030.

This commitment of funds would ensure the Legislature fully addresses the problem statement of increasing debt service costs. At currently forecasted traffic and revenue for the TNB, it would also provide for maintaining current toll rates on the facility.



Full funding could be accompanied by policy direction on the use of these funds, but this step may not be required.

The Work Group recognizes the challenges of identifying \$125 million in available funding to dedicate for this purpose by the 2019 legislative session. However, the potential to lock-in this funding in support of addressing the inherent inequity of the TNB financing structure and the impact it has on TNB toll payers makes this the Work Group's top preference as a funding policy solution.

<u>Recommended Funding Option 2</u>: Plan for biennial budget provisos totaling up to \$125 million over the remaining term of the bonds (FY2020 – 2030).

Option 2 addresses the problem statement with biennial funding totaling up to \$125 million over the remaining term of the debt service. The Work Group requests that such funding be distributed at levels projected to maintain current (FY 2018) toll rates, while providing for the TNB account's sufficiency. For example, funding needs for the next two biennia are projected to be:

- ~\$26.0 million for the 19-21 biennium (FY 2020 FY 2021)
 - Includes ~25.2 million to address net revenue needs, plus an additional
 ~\$800,000 to meet TNB account sufficient minimum balance requirements.
- ~\$16.3 million for the 21-23 biennium (FY 2022 FY 2023)

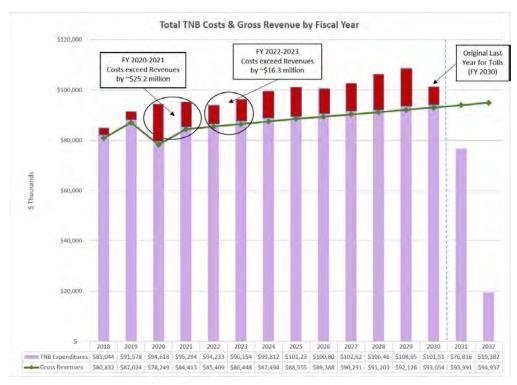


Figure 4

Policy Bill to Establish Long-term Legislative Intent

The Work Group recommends one or both of the following policy bill scenarios be paired with either of the recommended funding option.

Policy Bill Option 1: Establish legislative intent for future funding that fully addresses the \$125 million in debt service increases, while maintaining current (FY 2018) toll rates.

While the Legislature cannot commit funding in future budgets, a policy bill can establish legislative intent for use of future funds. This policy bill would establish legislative intent in support of fully funding the \$125 million in debt service increases, with the funds distributed across biennia as necessary for maintaining current (FY 2018) toll rates.

This is the Work Group's preferred policy bill scenario if the \$125 million is not provided as a lump sum (Funding Option 1).

Policy Bill Option 2: Require biennial mandatory reporting to the Legislature on TNB funding needs from the Commission.

The intent of this policy bill would be to serve as a tool for on-going identification and awareness of TNB funding needs. While not a statement of legislative intent to support full funding for the Work Group's funding recommendations, this policy bill would support the capacity to secure future funding once the exact amount needed is identified by the Commission.

The Legislature could pair this policy bill with either funding scenario, but would particularly add value for a biennial funding approach (Funding Option 2).

Additional Considerations to support cost reduction and toll payer relief.

In the course of determining funding recommendations, the TNB Work Group identified several actions for further consideration that would not fully address the problem statement and objectives, but would support cost reduction and toll payer relief. These include options to fund non-debt service costs and to assess opportunities to reduce operations costs, such as costs of collection. These and other considerations are described in the Recommendations section.



Full Report of Findings and Recommendations

The TNB Work Group

Authorization

The Washington State Transportation Commission (Commission) appointed the TNB Work Group at the direction of the Washington State Legislature per authorizing language included in the 2017-2019 biennium transportation budget (ESB 5096, Section 205(2)) as follows:

The legislature finds that there is a need for long-term toll payer relief from increasing toll rates on the Tacoma Narrows bridge. Therefore, the commission must convene a work group to review, update, add to as necessary, and comment on various scenarios for toll payer relief outlined in the 2014 joint transportation committee report on internal refinance opportunities for the Tacoma Narrows bridge.

The work group must include participation from the Tacoma Narrows bridge citizen's advisory group, at least one member from each of the legislative delegations from the districts immediately abutting the Tacoma Narrows bridge, the local chambers of commerce, and affected local communities. Legislative members of the work group must be reimbursed for travel expenses by the commission.

The work group must submit a report with its preferred and prioritized policy solutions to the transportation committees of the legislature by December 1, 2017.

Commission staff briefed the Transportation Commission on May 17, 2017 regarding the authorizing language, and on the staff's proposed implementation plan. The Commission approved the implementation plan, with scheduled Commission updates in October and December 2017.

Work Group Process

Commission staff established a set of tasks necessary for the Work Group to meet the requirements in the authorizing language by the required deadline. These tasks were updated and presented for each Work Group meeting. An important consideration for Commission staff in developing these tasks was the range of prior engagement on Tacoma Narrows Bridge funding, financing, and toll policy of Work Group participants. Further, with a mix of legislators, TNB Citizen Advisory Committee members, a Transportation Commissioner, and other stakeholders, Work Group participants will have differing roles in moving forward on recommendations. Tasks therefore included a review of prior tasks, and attention to defining terms and processes. However, this mix also meant Work Group participants brought forward a variety of expertise throughout the Work Group's process.

Below is the final set of tasks, as completed by the Work Group.

- Established Work Group mission & intent. (meeting 1)
- Reviewed history of TNB performance, rate-setting, and financial support. (meeting 1)
- Updated and assessed toll payer relief scenarios from the 2014 Joint Transportation
 Committee's (JTC) Report on TNB Internal Refinance Opportunities. (meeting 1 & 2)
- Identified and advanced for further consideration toll payer relief scenarios from the JTC report and additional scenarios from the Work Group discussion. (meeting 2 & 3)



- Updated analysis based upon current traffic and revenue forecasts and TNB financial plan. (meeting 3 & 4)
- Agreed to problem statement that addresses what is driving TNB toll rate increases. (meeting 4)
- Finalized prioritized financial and policy solutions. (meeting 4)
- Reviewed draft report and approved the final report. (done via email)

Work Group Schedule

Work Group Meetings

The Work Group met four times between August 1, 2017 – December 1, 2017. All meetings took place in either Gig Harbor or Tacoma in an effort to facilitate participation by the local participants.

Meeting Date	Location
August 1, 2017	INN at Gig Harbor
September 26, 2017	University of Washington Tacoma
October 26, 2017	Gig Harbor Civic Center
December 1, 2017	Gig Harbor Civic Center

Figure 5

Updates to Transportation Commission

Commission staff and Work Group Co-Chairs Shiv Batra and Bruce Beckett provided three updates to the Transportation Commission:

- May 17, 2017: Commission staff briefed Commissioners on the budget language directing the Commission to convene the Work Group, and for approval on the plan for moving forward.
- October 18, 2017: Commission staff and Work Group Co-Chairs Shiv Batra and Bruce Beckett presented on the Work Group progress in meeting the requirements in the budget language.
- **December 12, 2017**: Commission staff and Work Group Co-Chairs Shiv Batra and Bruce Beckett recap steps taken by the Work Group to meet the requirements in the budget language, and report out on preliminary preferred and prioritized policy solutions.

Work Group Participants

In accordance with the the 2017 budget language directing the formation of the Work Group, the Commission cast a broad net for participation. Invited participants included:

- All members of the legislative delegations immediately abutting the Tacoma Narrows Bridge
- Representatives of the Tacoma and Gig Harbor Chambers of Commerce
- Mayors from Gig Harbor, Tacoma, and University Place
- Members of the Kitsap and Pierce County Councils whose districts include the Tacoma Narrows Bridge
- Representation from Pierce Transit.
- Two members of the TNB Citizen Advisory Committee were invited to participate
- One Transporation Commissioner who serves on the Commission's Tolling Subcommittee.



Figure 6

Upon the request of the Work Group, additional representation was added from the following interests: the social services community; the Port Orchard Chamber of Commerce; and the Port Orchard City



Council. Representative Jake Fey (District 27, Tacoma) was also added to the Work Group membership. In addition, Randy Boss, member of the TNB Citizen Advisory Committee, was also an active Work Group participant.

The Commission appointed Bruce Beckett, Chair of the TNB Citizen Advisory Committee and Transportation Commissioner Shiv Batra as Co-Chairs of the Work Group.

Final Work Group participation included the following members:

Organization	Work Group Member
Washington State Transportation Commission	Commissioner Shiv Batra
	Work Group Co-Chair
TNB Citizen Advisory Committee	Chair Bruce Beckett
	Work Group Co-Chair
	Vice-Chair Al Weaver
Legislative District 26	Senator Jan Angel
	Representative Jesse Young
	Representative Michelle Caldier
Legislative District 27	Representative Jake Fey
Legislative District 28	Representative Christine Kilduff
	Representative Dick Muri
Gig Harbor Chamber of Commerce	Warren Zimmerman, President / CEO
Port Orchard Chamber of Commerce	Matt Murphy, Executive Director
City of Gig Harbor	Mayor Jill Guernsey
City of Tacoma	Mayor Marilyn Strickland
	Council Member Ryan Mello attending
City of University Place	Mayor Javier Figueroa
City of Port Orchard	Council Member Bek Ashby
Pierce County Council	Council Member Derek Young
Pierce Transit	Alexandra Mather, Government Relations Officer
Children's Home Society of Washington	Jud Morris, Key Peninsula/Pierce County Director

Figure 7

Commission staff worked with staff from WSDOT's Toll Division, Financial Planning and Economic Forecasting units to update traffic, revenue, and cost information for the Tacoma Narrows Bridge and to assess Work Group proposals. Additional support was provided by staff from the Legislature, the Joint Transportation Committee, and the Office of the State Treasurer.

Work Group Intent

Based on the authorizing language the Work Group defined their mission and objective as follows:

Mission: Long-term toll payer relief from increasing toll rates on the Tacoma Narrows Bridge

Objective: Identify preferred and prioritized policy solutions that address fundamental drivers of TNB toll rate increases, so as to provide long-term toll payer relief for users of the Tacoma Narrows Bridge.

TNB Tolling Background

Included below is an abridged version of information contained in the JTC TNB report, as well as updates for actions and changes since the JTC completed their report in January 2014. Commission and WSDOT



Toll Division staff presented the Work Group with a summary of TNB project financing, toll rate history and costs, as well as an electronic copy of the JTC TNB report.

Project Financing History

- 1993-1997: Origin as a public-private partnership (P3) proposal to build and operate without state tax dollars
- 1998-1999: Project approved by voters and Legislature for operation as a P3 financed with privately-issued bonds paid back with tolls on bridge traffic. Additional stipulations included:
 - the initial round-trip toll was not to exceed \$3.00 and would be charged when the new bridge is open to traffic;
 - the round trip toll may be adjusted at any time after the new bridge is open, consistent with limits imposed by state law;
 - o toll revenues would pay for development, financing, design, construction, maintenance and operations; and
 - tolls would be collected until all bond retirement and interest has been paid (RCW 47.46.140).
- 2000: State Supreme Court ruled (November 9, 2000) that the P3 agreement violated state law, effectively halting the project. Violations included:
 - Allowing tolls on the existing bridge;
 - o Allowing a private entity to set tolls instead of the Commission
 - Allowing tolls to be used for the maintenance and operation costs of the existing bridge
- 2000: The Legislature appropriated \$50 million from the Motor Vehicle Fund in support of construction costs for TNB improvements.
 - This contribution had the effect of reduced the necessary value of financing for construction costs.
 - The \$50 million had originally been appropriated in 1999 for development of the TNB P3 project.
- 2002: Legislature approves public financing for TNB to replace P3 financing
 - o Referendum 49 bond authorization backed by state fuel tax
 - o Toll revenue to reimburse Motor Vehicle Account
 - No toll revenue or tax dollars authorized to pay debt service during construction
 - Resulted in issuance of primarily non-callable zero coupon bonds

TNB Toll Rate History

The Tacoma Narrows Bridge's original toll rate plan (2002) assumed a flat, single toll rate. The 2002 planned toll rates were based on the Traffic and Revenue Study completed by Wilbur Smith Associates in August 2002 to support project financing. A 2005 Traffic and Revenue Study update, also conducted by Wilbur Smith Associates, confirmed the same toll rate structure, though projected lower toll revenues. These traffic and revenue studies, including the toll plans, were not intended to commit the Commission to setting a designated toll rate schedule, but they did serve as guidance for the Commission's initial rate setting process in 2007-2008.



This 2002 toll rate plan assumed all tolls would be collected as cash at toll booths. The original plan assumed an initial \$3.00 toll with tolls expected to grow in three \$1.00 increments, concluding with \$6.00 tolls in FY 2016 (July 1, 2015).

Per the 2014 JTC TNB report, prior to the Wilber Smith Associates traffic and revenue study, toll levels used to discuss financial options with legislators during the 2002 legislative session assumed a \$3.00 toll from FY 2007-FY2010, gradually growing to \$4.75 in FY 2017, and maxing out at \$5.00 in FY 2022. This toll schedule was based on a preliminary analysis of a possible toll rate schedule. The assumed \$3.00 toll rate originated with the voter-approved proposal.

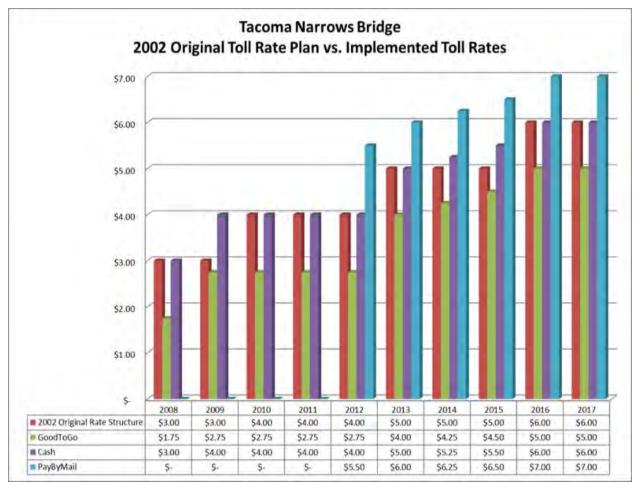


Figure 8

While the 2002 toll rate plan set forth an estimated toll rate schedule, various factors have come into play that influenced actual toll rate setting by the Transportation Commission, beginning in 2007. Some of those factors are as follows:

1. An option to pay tolls with a transponder was added for the first year of the bridge, and the Legislature provided non-toll revenue to support a lower toll rate for this transponder option. So while the Commission set the cash rate at \$3.00 as planned, the transponder (*Good to Go!*) rate



- was set at \$1.75. This *Good to Go!* rate has remained between \$1.00 \$1.25 less than the cash rate.
- 2. A pay by mail option was added as third payment option on July 1, 2011 (FY 2012). This rate has remained \$1.00 \$1.50 higher than the cash payment option.
- 3. Cash toll rates have increased per the original rate plan, with cash rates going to \$6.00 on July 1, 2015, and since staying steady at that rate. However, with the *Good to Go!* at a lower toll rate, the weighted average toll rate paid by users of the bridge have remained lower than planned, topping out at \$5.26. (*See table below*)

TNB Toll Rate History with Weighted Average Toll Rate

		FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19- FY32
2002 Planned Toll														
Rate	Cash		\$3.00			\$4.00			\$5.00			\$6	.00	
	Transponder		\$1.75		\$2.75		\$2.75	\$4.00	\$4.25	\$4.50		\$5.00		
Actual Toll Rates	Cash	N/A	\$3.00		\$4.00		\$4.00	\$5.00	\$5.25	\$5.50		\$6.00		
	Pay-by-Mail						\$5.50	\$6.00	\$6.25	\$6.50		\$7.00		
Weighted Avg. Toll			\$2.12	\$3.13	\$3.13	\$3.13	\$3.13	\$4.44	\$4.57	\$4.82	\$5.26	\$5.24	\$5.24	

Figure 9

4. Despite lower average toll rates than what the original toll plan estimated, traffic volumes after the first two fiscal years were significantly lower than original projections. This may largely be attributed to the Great Recession. These low traffic volumes and economic challenges for local communities created additional public and political pressure to maintain toll rates as low as possible, despite the potential need for higher than anticipated rates in later years as debt service obligations grew.

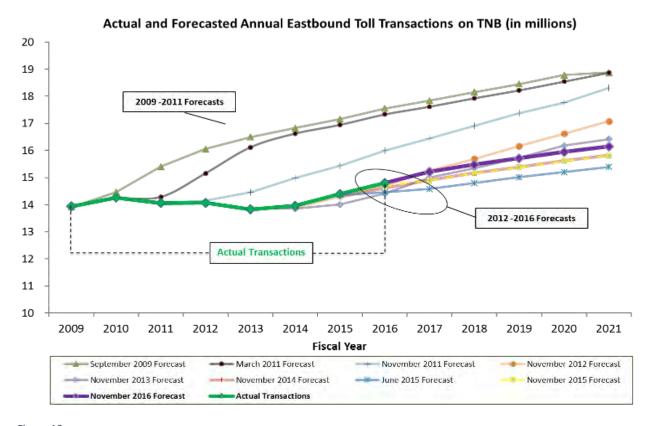


Figure 10

In total, the Transportation Commission has implemented five toll rate increases since the TNB opened: Fiscal Years 2009 and 2013-2016. In May 2016, the Commission approved removing a planned \$0.50 rate increase for FY 2017 because of higher than anticipated traffic volumes and support of non-toll revenue support from the Legislature. No rate increase was implemented for FY 2018.

History of Contributions and Savings for the TNB Account *TNB Cost Collection Savings*

On several occasions, WSDOT has implemented cost collection savings benefiting TNB bridge toll rate payers. These have included:

- A 30% reduction in TNB toll vendor costs negotiated in 2008
- Continued cost savings in subsequent contract renegotiations with the TNB toll collection vendor
- Savings from a new statewide back office vendor in 2011
 - o Development costs for the system paid at no cost to TNB toll payers
 - The vendor's agreed to operating cost were (and remain) below industry average
 - Vendor delays and errors in initial operation were compensated as reductions in monthly payments



• A sharing of costs between all toll facilities (based on transactions) for the back office and customer service vendor has meant that TNB rate payers have benefited as the SR 520 floating bridge, SR 167 HOT Lanes, and I-405 Express Toll Lanes facilities came on-line.

State Funding Contributions and Savings for the TNB Account

The Legislature has a history of providing funds to supplement Tacoma Narrows Bridge toll revenues for payingcosts and for managing toll rate amounts. This includes support of construction costs that reduced the bonding commitment, as well as support to offset the need for a toll rate increase. The Office of the State Treasurer has also provided savings for toll rate payers by refinancing all callable TNB bonds.

Below is a timeline that lists contributions and savings provided for the TNB Account for these purposes:

Year	Source	Action
FY 2000 – FY 2003	Legislature	 \$50 million provided from Motor Vehicle Fund in support of construction and preservation costs Funds remaining after bridge construction continue to pay TNB repair & replacement costs; funds expected to be fully used in FY 2020.
2006	Legislature	 \$1.3 million from Multimodal Transportation Account Enabled a lower initial toll when the bridge opened, for toll payers using a transponder. The Commission set initial toll rates (FY 2008) at \$1.75 for payment with a transponder, and \$3.00 for payment with cash.
2007	Legislature	 \$5.288 million loan from Motor Vehicle Fund Provided to help cover operating expenses & establish reserves Interest free loan repaid with TNB Civil Penalty Revenue (on-going repayment) \$1.9 million has been re-paid from the TNB account, with the next repayment of \$950,000 scheduled for FY 2019. The last repayment is scheduled for 2025.
2012 & 2014	Office of the State Treasurer	 Provided savings for toll payers by refinancing all "callable" TNB bonds. Resulted in nearly \$9.5 million of savings for TNB toll payers, with typical annual savings of between \$540,000 - \$600,000 Refinancing remaining bonds would not result in savings, as they are non-callable zero coupon bonds
2012 & 2015	Legislature	 Twice deferred repayment of \$57.6 million in state & local sales tax from construction of the TNB. The sales tax was originally due from FY 2012 – FY 2021. 2012: Deferred to FY 2019 – FY 2028 2015: Deferred to FY 2032 (or earlier w/available funds)

Year	Source	Action (cont.)		
2016	Legislature	• \$2.5 million from Motor Vehicle Fund for FY 2017.		
		 The funds paid a portion of TNB debt service, averting 		
		a FY 2017 toll rate increase		
2017	Legislature	• \$5 million loan from Motor Vehicle Fund for FY 2019.		
		 Temporarily provides additional funds for the TNB 		
		account, by providing sufficient funds to enable no		
		toll rate increase in FY 2019.		
		 Funds will be transferred to the TNB account in April 		
		2019 for repayment in November 2019.		

Figure 11

2014 Joint Transportation Committee – Tacoma Narrows Bridge Refinance Report

The 2017-2019 transportation budget language directing the Commission to form the Work Group directed it to "review, update, add to as necessary, and comment on various scenarios for toll payer relief outlined in the 2014 Joint Transportation Committee (JTC) report on internal refinance opportunities for the Tacoma Narrows bridge." The work group's assessment of these scenarios are described in the report findings, but a summary of the study is below.

JTC Study Summary

In 2013, the Legislature directed the JTC to convene a staff work group for the purpose of studying internal refinance options for the Tacoma Narrows Bridge. The JTC defined internal refinance opportunities as changes that to not require the State Treasurer to re-issue debt, such as non-toll revenue to defray costs, reducing costs paid by tolls, or other alternatives. The workgroup included staff from the JTC, Transportation Commission, OFM, Legislature, WSDOT, and Treasurer's Office.

The JTC presented the results of this study to the Legislature in January 2014. Unlike the TNB Work Group, the JTC staff work group was not asked to recommend or prioritize particular scenarios, just to provide the Legislature with a set of viable options.

The JTC staff work group developed a scenario estimating tool that they used to develop the seven toll payer relief scenarios presented to the Legislature, including a scenario of double-digit toll rates for comparison purposes only. As described in the JTC report, it is not a rate-setting tool, but allows policy makers to evaluate the relative scale of impacts of various scenarios. The Analysis & Findings section includes more information about the scenario estimating tool, along with updates made for this TNB Work Group study.

The seven scenarios presented to the Legisalture from the JTC report are described below:

- 1. A non-toll revenue source pays the deferred construction sales tax (\$58 million)
 - a. The deferred construction sales tax was further deferred for repayment by FY 2032 with toll revenues.
- 2. Effect on tolls of a 5% cut in toll operations and vendor costs
 - a. Scenario considered continuing a 5% cut enacted in the FY 2013-15 budget
- 3. Effect on tolls if a non-toll revenue source pays preservation costs for the new bridge



- 4. Tolls only pay debt service effect on tolls and the revenue source that pays the rest of the facility's costs.
 - a. Evaluated both as a "gift" from other revenue source(s), and as a loan to be repaid by toll payers beginning in 2031.
- 5. Loan to keep blended toll no higher than \$6.00, with loan repaid by toll payers beginning in 2031.
- 6. Loan to offset effect of increasing debt service, with loan repaid by toll payers beginning in 2031.
- 7. Rely on only toll rate increases to meet revenue needs.
 - a. Assessed as a comparison to scenarios that provide non-toll sources of revenue, and to test likelihood of double digit tolls.

A chart included in the 2014 JTC report comparing the potential impacts of each scenario is included on the following page.



Scenario		Potential impact on tolls (reduction from base case)	Potential impact on motor vehicle account	Other considerations
1	The \$58 million deferred sales tax is repaid by non-toll revenues, FY 2019-2028	35 – 45 cents	\$58 million, or about \$11 million a biennium	SR 520 deferred sales tax is \$144 million, FY 2022 – FY 2031. If also repaid by motor vehicle account, costs \$201 million, or \$30 - \$40
2	5% cut in toll vendor and toll operations budget	5 cents		Already enacted in FY 2013-15 budget
3	Non-toll revenues pay preservation costs of \$26 million through 2030	10 - 15 cents on average	\$26 million	Users of other tolled facilities will want similar treatment.
4 "gift"	Tolls only pay debt service – gift from motor vehicle account pays all other costs	\$1.10 - \$1.45 on average, FY 2016 - 2030	\$276 million FY 2016 – 2030, averaging \$30 - \$42 million / biennium	 Users of other tolled facilities will want similar treatment. Impact on other projects and programs funded from the motor vehicle account
4 "loan"	Tolls only pay debt service; loan from motor vehicle account pays other costs; repayment toll paid 2031- 2035	Same savings as above; repayment toll averages \$3.70 - \$5.75	\$276 million FY 2016 - 2030, avg. \$30 - \$42 million / biennium repaid beginning 2031	 Users of other tolled facilities will want similar treatment Impact on other projects and programs funded from the motor vehicle account
5 "loan"	Maximum \$6.00 toll; loan from motor vehicle account; repayment toll paid 2031 - 2035	80 cents - \$1.30 average savings; repayment toll averages \$3.05 - \$5.00	\$161 - \$242 million Repaid beginning 2031	 Affects only zero growth and pessimistic traffic scenarios because tolls don't exceed \$6.00 in current traffic forecast Users of other tolled facilities will want similar treatment Impact on other projects and programs funded from the motor vehicle account
6 "loan"	Level debt service beginning in FY 2016; loan from motor vehicle account; repayment toll paid 2031 - 2035	\$1.00 - \$1.30 average savings; repayment toll averages \$3.10 - \$4.75	\$231 million Repaid beginning 2031	 Loan from motor vehicle account would offset the effect of escalating debt service Impact on other projects and programs funded from the motor vehicle account
7	Likelihood of double digit tolls	Not likely to reach double digit tolls	NA	Extremely unlikely scenarios may result in blended toll slightly above \$10 in the last 1-3 years of debt service payment: • traffic falling 2% every year; or • 9% annual inflation; or • 1.5% annual traffic decline plus 5% annual inflation

Figure 12



TNB Work Group Analysis & Findings

Description of Model and Inputs

Analysis for the TNB Work Group relied on use of a scenario estimating tool developed by the WSDOT Financial Planning office for the JTC 2014 TNB refinancing study to model "what if" scenarios and their potential impact on toll rates through 2030 and beyond. It is not a rate-setting tool, but allows policy makers to evaluate the relative scale of impacts of various scenarios.

Because of the importance of this tool for each report's analysis, included below is a description of the tool. This includes notation of updates to the tool for this study, since it was used for the original JTC study.

<u>Key elements</u> of the tool include the following, all of which can be modified to evaluate the impact of changes on potential toll rates:

- traffic
- revenues
- expenses
- the sufficient minimum balance required by the Transportation Commission, and
- the blended toll rate.

<u>Traffic estimates</u>. The tool allows the user to evaluate any number of traffic scenarios. For purposes of this study, four traffic scenarios were evaluated:

- the official traffic forecast, based on the official November 2017 transportation revenue forecast;
- a zero-growth scenario, where traffic is flat through 2032;
- a pessimistic scenario, where traffic is assumed to fall every year by 0.8%. This -0.8% reflects
 the average traffic growth on the bridge during the first five years of operation, a period
 that includes a significant economic recession; and
- NEW: an optimistic scenario, where traffic is assumed to increase 2.45% based on the average of actual growth rates for FY 2015 FY 2017.

<u>Caveats</u>. In evaluating results of the scenario estimating tool, it is important to keep in mind the following caveats and assumptions:

- the tool does not adjust for elasticity (traffic is not adjusted due to higher or lower toll rates);
- expenses increase at the full inflation rate, not half as in the current TNB financial plan;
- the same rate of inflation is used for all applicable costs, as opposed to some variation between costs applied by WSDOT.
- the toll rate is expressed as a blended rate (a weighted average of all toll rates);
- analysis begins with FY 2019 rates, because the Transportation Commission has already set toll rates for FY 2018; and
- results are rough estimates, suggesting general trends but requiring further analysis for policy decisions.
- Estimated toll rates do not fully reflect SMB requirements. As needed, additional analysis
 completed to estimate sufficiency requirements per the 3 month rolling average fund
 balance measurement.

While a very useful tool without which the study could not have been completed, the scenario estimating tool is not a complex model and thus has its limitations. Furthermore, it was used to look 14 years into the future, so its results are speculative. By contrast, the Transportation Commission sets tolls one to two years in advance, so that rates are responsive to actual dynamic economic factors. This allows the Commission to achieve more accuracy and precision when setting toll rates.

Updates to Model and Inputs

Commission staff completed initial updates to the model and inputs prior to the first meeting of the TNB Work Group. These initial updates were based on information in the June 2016 transportation revenue forecast, and the November 2016 TNB financial plan. Commission staff also met with staff from the JTC and the WSDOT Financial Planning and Toll Division units to support an understanding of the model and inputs.

As the Work Group proceeded, updates were applied to analysis based on updated revenue forecasts (September and November 2017), the November 2017 TNB financial plan, and anticipated Commission action. Detailed traffic and revenue projections by payment type were provided by WSDOT, as developed by WSDOT's economic forecast consultant, Stantec, Inc.

Updates to JTC Scenarios

As required by the Legislature's authorizing language, Commission staff updated the scenarios from the 2014 JTC report using the updated scenario estimating tool for review by the Work Group. These updated scenarios informed Work Group decisions on whether to either advance or modify these scenarios as prioritized policy solutions.

Changes to the inputs driving the JTC Scenario results are summarized below:

Cost Updates

- The Office of the State Treasurer was able to refinance the remaining callable bonds, resulting in debt service savings from lower interest rates.
- In 2015, the Legislature deferred sales tax repayment to FY 2032, with capacity to pay earlier, or to stretch repayment over multiple years.
- The addition of the I-405 Express Toll Lanes (ETL) facility increased system economies of scale.
- Higher than anticipated system procurement costs for the back office customer service center and toll processing systems.

Traffic and Revenue Updates

- Higher than forecasted growth in annual traffic volume since FY 2015.
- The Legislature provided additional assistance with approval of \$2.5 million in gas tax funding in 2016 (for FY 2017) and a \$5.0 million loan approved in 2017 for FY 2019.
- The Commission implemented two toll rate increases (FY 2015 & FY 2016), increasing the toll rates to \$5.00 for *Good to Go!* / \$6.00 for cash / \$7.00 for pay by mail, or a blended average of about \$5.25.

The table below summarizes the results of updates to the seven scenarios included in the 2014 JTC report. A non-toll revenue source is not assumed, but the motor vehicle account is provided as an example. Toll rate changes reflect impacts to the blended toll rate. The source of this information is the



update to the TNB Toll Rate Scenario Model prepared for the study. In all cases, it is the responsibility of the Transportation Commission to set toll rates.

Scenarios		Potential impact on tolls (reduction	Potential impact on motor vehicle account	Other Considerations
		from base case)	(or other source)	
2 3	The \$58 million deferred sales tax is repaid by nontoll revenues, FY 2019-2028 5% cut in toll vendor and toll operations budget Non-toll revenues pay	In 2015 the Legislature Payments begin no lat plan full repayment be Reduction enacted in reduced costs in subse Savings vary by	e deferred state and local ter than Dec. 31, 2031. W y FY 2032. Tolls remain or	Users of other tolled facilities
	preservation (R&R) costs of \$24.5 million through 2032	year, but range from about \$0.50 in FY 2020-2023, down to \$0.11 starting in FY 2029.		may want similar treatment.
4 "gift"	Tolls only pay debt service – gift from other source (ex: motor vehicle account) pays all other costs	Savings of about \$0.82 per year, assuming no rate decreases	\$288 million FY 2019 – 2030; would enable deferred sales tax repayment in FY 2030.	 Users of other tolled facilities will want similar treatment. Impact on other projects & programs funded from motor vehicle account or other source
4 "loan"	Tolls only pay debt service; loan from other source (ex: motor vehicle account) pays other costs	Same savings as above	\$327 million FY 2019 – 2032; May require extension of tolling to FY 2033 to repay last \$10.7 million	 Users of other tolled facilities will want similar treatment Impact on other projects & programs funded from motor vehicle account, or other source
5 "loan"	Maximum \$6.00 toll; loan from other source (ex.: motor vehicle account)	Potential savings of about 5-7 cents based on preliminary assessment with Nov 2017 financial plan.	Not assessed for Work Group as assessment based on initial forecasts and financial plan (Nov 2016) did not project a blended toll rate exceeding \$6.00.	 Likely affects only zero growth and pessimistic traffic scenarios pending SMB analysis Users of other tolled facilities will want similar treatment Impact on other projects & programs funded from motor vehicle account or other source
6 "loan"	Level debt service beginning in FY 2019; loan from other source (ex.: motor vehicle account); repayment in FY 2032	Savings of about \$0.38 in FY 2020, and \$0.34 the remaining years.	\$125 million; May require extension of tolling to FY 2033 to repay last \$10.7 million	 Loan from other source would offset the effect of escalating debt service; Impact on other projects & programs funded from motor vehicle account or other source
7	Reliance on only toll rate increases to meet obligations / Likelihood of double digit tolls	Extremely unlikely to reach double digit tolls	NA	 Reliance on toll rate increases is the default option. Improved traffic volumes, toll rate increases, and deferral of sales tax repayment to after debt service repayment make double digit tolls even less likely than during 2013-14 JTC assessment

Figure 13



Determining the Problem Statement

The Work Group considered several factors when assessing what problem(s) is driving the need for long-term toll payer relief for users of the Tacoma Narrows Bridge. A driving consideration was whether these factors represented clear inequities with the State's other tolling facilities. Factors considered by the Work Group included:

Economic Factors

The new Tacoma Narrows Bridge opened on July 16, 2007. By December of 2007 the U.S. would enter into the Great Recession. While the recession would officially last through July 2009, economic trends in Washington State indicate that the effects continued to be felt at least through 2014. For example, per OFM, with a comparison to annual growth rates for the Tacoma Narrows Bridge:

Year	TNB Traffic Growth Rate (FY)	WA Gasoline Prices	Unemployment Rate	Per Capita Personal Income	Median Home Price
2016	2.8%	\$2.53	5.4%	\$53,493	\$314,900
2015	3.1%	\$2.75	5.6%	\$52,636	\$289,200
2014	0.9%	\$3.61	6.1%	\$51,616	\$267,600
2013	-1.7%	\$3.69	7.0%	\$49,827	\$253,800
2012	-0.0%	\$3.88	8.1%	\$50,127	\$236,600
2011	-1.4%	\$3.77	9.2%	\$47,669	\$223,900
2010	2.5%	\$3.06	9.9%	\$46,443	\$246,300
2009	0.2%	\$2.63	9.2%	\$46,622	\$250,400
2008	-	\$3.45	5.5%	\$50,302	\$284,400
2007	-	\$3.00	4.5%	\$49,439	\$309,600

Figure 14

https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMM_EPMO_PTE_SWA_DPG&f=A https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-trends/economic-trends

As reflected by the chart above, the commencement of TNB tolling aligned with challenging economic conditions (2009-2014), followed soon after by a sustained increase in gas prices (2010-2014). These trends align with a period of largely flat to negative traffic growth for the Tacoma Narrows Bridge (2009-2014). During this time, the Commission increased toll rates for FY 2009, FY 2013, and FY 2014, followed by additional increases for FY 2015 and FY 2016.

While not necessarily correlated, the poor economic trends and high gas prices, coupled with the traffic growth challenges created a challenging environment for commencing tolling, and for implementing toll rate increases necessary to meet financial obligations.

Construction Costs & Financing

The Tacoma Narrows Bridge was sold to voters as a project that would be built without use of state tax dollars. Even with the switch from public-private partnership to public financing, the Legislature chose to largely maintain that commitment. As a result, WSDOT estimates that toll revenue is responsible for nearly 99% of the bridge's construction costs. For comparison, WSDOT estimates that toll revenue is



responsible for 72% of costs for the SR 520 Bridge and pontoons. See Appendix 4 for additional comparison between funding and financing for the SR 520 and TNB projects.

As described in the Project Financing History section, the State established that TNB debt service requirements meet immediate construction and financing needs, while seeking to keep initial toll rates aligned with the promised \$3.00 rate. This approach kept initial financial obligations relatively low and enabled no tolling on the old bridge as the new bridge was constructed. However, to gain these benefits required significant long-term financing trade-offs:

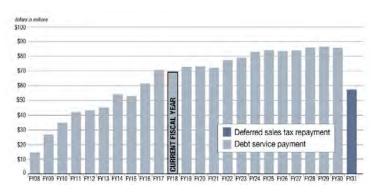


Figure 15: TNB Debt Service Schedule

- First, the debt service schedule was set to escalate significantly over the life of the bond repayment schedule, shifting the burden of repayment to future rate-payers. See Figure 16 below for the remaining TNB debt service owed by biennium.
- Second, to provide for financing to support construction without tolling the existing facility
 during the new bridge's construction, the majority of bonds sold were non-callable no coupon
 bonds, meaning that they could not be refinanced in a manner that would provide future
 savings if lower interest rates became available.

While meeting immediate needs, the next Washington State
Treasurer advocated for an alternative approach in line with best practices on the next tolled facility to come online, the SR 520 Bridge. This included tolling that began on the old facility, and a level debt service repayment schedule. Together, this resulted in more favorable financing, including bonds that could be refinanced for future savings, if interest rates improved.

Remaining TNB Debt Service and Deferred Sales Tax Costs (FY 2019 – FY 2031)					
	Debt	Deferred			
	Service	Sales Tax			
2017-19 (FY 2019 only)	\$72,802,300	\$0			
2019-21	\$145,202,950	\$0			
2021-23	\$157,319,450	\$0			
2023-25	\$167,665,200	\$0			
2025-27	\$167,577,450	\$0			
2027-29	\$172,678,150	\$0			
2029-31	\$79,660,000	\$57,590,000			
2031-33	\$0	\$0			
TOTAL	\$1,032,734,150	\$57,590,000			

Figure 16

The Office of the State Treasurer (OST) has taken action to reduce or defer financing obligations for the Tacoma Narrows Bridge by refinancing all three callable bond series. OST's bond refinancing actions in 2012 and 2014 collectively resulted in \$9.5 million in savings for rate payers. The additional bond series are the non-callable no coupon bonds, so no further opportunities for savings are expected to arise from refinancing.



In addition, the Legislature has deferred repayment of the construction sales tax to after the debt service is repaid, supporting more level annual financial obligations.

In considering the remaining toll payer burden of construction costs and related financing, the Work Group determined the amount of debt service costs that are scheduled to increase for the remainder of the debt repayment schedule (FY 2019-2030), compared to FY 2018 debt service levels. In total, TNB rate payers are scheduled to pay \$125 million more in debt service in FY 2019-2030 compared to a theoretical flat debt service schedule.

In addition to debt service and sales tax costs, TNB toll revenues must pay for the operations and maintenance (O&M), as well as repair and replacement Figure 17

Costs to Offset Remaining TNB Debt Service Increases over FY 2018 Levels		
	Costs Per Biennium	
17-19 Biennium	\$2,973,650	
19-21 Biennium	\$5,545,650	
21-23 Biennium	\$17,662,150	
23-25 Biennium	\$28,007,900	
25-27 Biennium	\$27,920,150	
27-29 Biennium	\$33,020,850	
29-31 Biennium	\$9,831,350	
31-33 Biennium		
Total	\$124 961 700	

10tai \$124,961,700

(R&R) of both the tolling equipment and the bridge. In addition, TNB toll revenue pays a proportional amount of system costs for the customer service center and toll processing. WSDOT distributes these costs across all the state's tolling facilities based on the number of transactions.

Rolling these costs together, the per transaction cost to collect for a toll paid to cross the TNB varies by payment method. The chart below provides those distinctions. Note that these costs do not include leakage from unbilled or unpaid tolls. Such costs apply primarily to the Pay by Mail payment method, and to a lesser degree, the *Good to Go!* transactions.

From a net revenue perspective, the toll booth transactions provide the greatest value at current toll rates, as there is a greater difference

Payment Method	TNB Toll Rate	Cost To Collect (per toll)	% of TNB Toll Transactions
Good To Go! accounts with pass	\$5.00	\$0.38	58%
Good To Go! accounts without pass	\$5.25	\$0.43	10%
Toll Booth	\$6.00	\$0.99	24%
Pay By Mail bill	\$7.00	\$0.95	8%

Figure 18

between the toll rate and cost to collect, and there is no leakage.

While repair and replacement costs are paid from the TNB account, the source of payment for these costs has been gas tax revenues remaining from a contribution for construction costs from the Motor Vehicle Fund. These gas

The Cost to Collect does not include leakage from unbilled or unpaid tolls

tax revenues are scheduled to fully cover TNB repair and replacement costs through FY 2019, and to partially cover repair and replacement costs in FY 2020. Toll revenue is then scheduled to be the sole source for paying these costs after FY 2020.



Looking forward, the table below details the remaining O&M and R&R costs per biennium for the TNB (FY 2019 – FY 2031), as assumed in the scenario estimating tool used for modeling projections for this study. Note: modeling for this study assumes tolling through FY 2031, but this table includes FY 2032 for reference, as deferred sales tax repayment may stretch to FY 2032, as permitted by current law.

	TNB Costs Per Biennium		
	Fund R&R	Fund Toll O&M	Fund Bridge O&M
17-19 Biennium (FY 2019 only)	\$532,000	\$16,075,441	\$2,168,500
19-21 Biennium	\$14,368,000	\$25,893,403	\$4,447,939
21-23 Biennium	\$1,499,000	\$26,940,614	\$4,627,827
23-25 Biennium	\$383,000	\$28,164,886	\$4,838,131
25-27 Biennium	\$1,449,000	\$29,362,832	\$5,043,913
27-29 Biennium	\$1,347,000	\$36,143,470	\$5,248,446
29-31 Biennium	\$3,803,000	\$31,808,807	5,464,080
31-33 Biennium (FY 2032 only, if necessary)	\$162,000	\$16,402,098	2,817,533
Total (FY 2019 – FY 2031)	\$23,381,000	\$194,389,454	\$31,838,837

Figure 19

Maintaining a Sufficient Fund Balance

The sufficient minimum balance (SMB) is a target minimum fund balance that serves as a tool to protect the TNB fund balance from going negative. The Commission first adopted a policy to establish the SMB in March 2010, and amended it in February 2013.

This policy supports the financial interests of the state, taxpayers, and TNB toll payers by helping ensure sufficient funds are available to meet financial obligations in the case of a major loss of revenue event.

The current SMB value is about \$10.4m (FY 2018). This amount is set at 12.5% of annual TNB costs, which is equivalent to about 45 days of working capital for the facility. The SMB's value is not an annual expenditure, but rather a part of TNB account's fund balance. As a comparison, for SR 520, bond

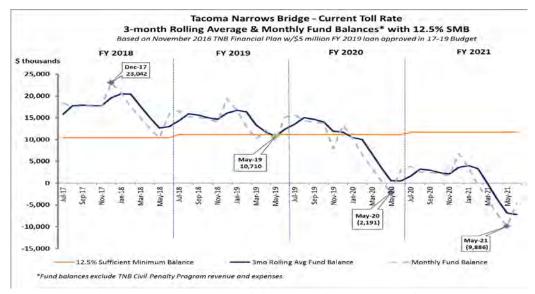


Figure 20: SMB value FY 2018 - FY 2021. As provided to TNB Work Group in September 2017.

covenants require funds be set aside in reserve accounts to cover operations, maintenance, repair and replacement of the bridge and tolling equipment, and for a revenue stabilization account. These balances total to just over \$50 Million in Fiscal Year 2017, about 87% of total 2017 expenses.

To measure whether the TNB fund balance is meeting the SMB policy requirements, the Commission uses a sufficiency test based on a 3-month rolling average of the monthly TNB fund balance. If the Commission determines there is significant risk the fund balance will fall below the SMB, the Commission will initiate a rate-setting process. The 3-month rolling average allows for a brief dip below the SMB without triggering a rate-setting process. For this sufficiency test, the TNB fund balance excludes TNB Civil Penalty Program revenues and expenses.

Looking ahead, the Commission anticipates adopting changes to the SMB policy in January 2018. Options for consideration include implementing a flat \$10 million SMB balance requirement (rather than the current 12.5% of annual TNB costs requirement), and allowing for the inclusion of Civil Penalty costs and revenues for the sufficiency test. Potential changes were first discussed during the December 2016 Commission meeting, and given approval for possible adoption prior to the next TNB rate setting cycle. The Commission took up the topic again in December 2017, to address possible adoption prior to FY 2019. Given the likelihood of the Commission adopting these changes, analysis in this report updated with information in the November 2017 TNB financial plan assumes these updates to the SMB policy.

And The Problem Statement Is: The Remaining Debt Service Increases (\$125 million)

In considering the various factors discussed in the last section, the TNB Work Group concluded that the remaining escalating debt service was the problem that needed to be solved in order to achieve sustained toll payer relief going forward. Toll payers are facing \$125 million in debt service increases between FY 2019 - 2030. While the Work Group is looking to address the future impacts of this problem, it also identifies this as a problem that has contributed to rising toll rates since the opening of the facility in July 2007.

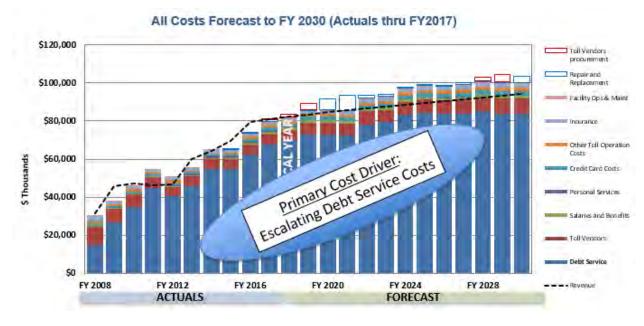


Figure 21



The TNB facility is set apart from other Washington State tolling facilities because of its steeply escalating debt service structure, as seen in Figure 2 above. Such a financing structure is not consistent with best practices, and is not supported by the Washington State Office of the State Treasurer as a financing approach going forward. The financing of the bridge relied on toll revenue providing 99% of the funding needed for the construction of the bridge, as well as the associated interest payments and other debt service costs. For comparison, about 72% of the construction costs for the SR 520 bridge (with pontoons) are funded with toll revenues (See Appendix 3). The Work Group sees this as an inequity for TNB toll rate payers and thus recommends future debt service increases that exceed the current debt service costs (FY 2018), be funded by a different source of revenue other than tolls.

Finally, addressing the remaining debt service increases applies lessons learned from the impacts of the Great Recession discussed in this report. Though driven by global economic crisis, the burden of this loss in potential toll revenues was borne by the TNB toll payers. Providing non-toll revenues to support level debt service costs for the remainder of the repayment schedule will help reduce this burden, and help mitigate the potential of such impacts from future recessions.

Providing \$125 million in non-toll revenue funding is equivalent to 10% of the total costs remaining over the life of the current bonds (FY2019 – FY2030), which includes the bond payments and the repayment of deferred sales tax immediately to follow the end of the debt service. Under this approach, TNB toll revenue would continue to pay 90% of the remaining costs. This approach meets the intent of the proviso to provide toll payer relief, while not wholly shifting the burden of the costs away from the TNB toll rate payers.

Objectives for Selecting Scenarios

As the Work Group reviewed and discussed the JTC Scenarios, the participants identified several objectives that they sought to accomplish to ensure their recommendations addressed the policy statement in a way that supports long-term toll payer relief. These objectives guided the Work Group when identifying how to proceed with the JTC Scenarios, and on developing new scenarios.

Maintain toll rates at FY 2018 levels.

The Work Group established that maintaining current toll rates would serve to address the impact of historical and future inequity caused by the steeply escalating debt service.

The Work Group considered preliminary assessments of selected scenarios paired with rate increases ranging from \$0.25 - \$0.75, and discussed the need for the Commission to raise rates by FY 2020 if the Legislature did not provide sufficient non-toll revenues for the TNB account. However, the Work Group opted to establish that policy solutions should maintain current toll rates. This meets the direction of the proviso to provide long-term toll payer relief for users of the TNB facility, and sends a clear message to rate payers that the state recognizes the burden of increasing toll rates caused primarily by the steeply escalating debt service schedule.

Pursue a transfer of funds with no repayment from toll revenues

In pursuing funding without repayment from toll revenues, the Work Group sought solutions that would not extend the burden of tolling longer than existing repayment schedules, while ensuring the capacity repay the deferred sales tax by no later than FY 2032.



The Work Group made this choice after considering preliminary assessments of selected scenarios with loan repayment options for FY 2031 – FY 2032, and after discussing the potential for extending that repayment past FY 2032. For example, while toll revenue is projected to be available in FY 2031 – FY 2032 to repay proposed levels of funding, the Work Group sought to retain the opportunity to repay the deferred sales tax in FY 2031. The Work Group also cited the costs of extending tolling that would add to the overall burden on TNB rate payers.

Funding to address immediate financial needs in the next 1-2 biennia

Without financial support, WSDOT and the Commission project TNB toll rates to increase in FY 2020. This will be necessary to address escalating costs, including debt service increases, repair & replacement costs, and vendor operations costs.

Funding immediate needs could be accomplished through two alternatives: funding the full \$125 million, or funding for the initial biennium(s). If the full \$125 million is not funded up front, addressing immediate funding needs will still serve to maintain current toll rates, set a precedent for additional Legislature funding support, and provide a down payment on future funding needs.

Overall funding needs for the next two biennia (~\$42.6 million) exceed the value of debt service increases (~\$26.2 million) due partly to cyclical equipment and system replacement costs, but this upfront funding would support the objective of maintaining current toll rates, and reduce future funding needs.

Establish long-term intent to address increasing debt service costs

The Legislature should declare or indicate in law its intent to provide funding to address the problem statement of increasing debt service costs, while supporting the capacity to maintain current toll rates.

Such intent may accompany funding for the full \$125 million as a lump sum, or in the case of partial funding, be policy direction for future budgets to continue providing funding in support of reducing the financial burden for TNB toll rate payers. The Legislature could also indicate intent on providing this funding by including it in the transportation project plan.

The Work Group also agreed to identify scenarios or elements of scenarios that may not fully fund such efforts, but still be useful in achieving this long-term relief.

Direction from Work Group on Updated JTC Scenarios

With the problem statement and objectives in mind, the Work Group did not seek to move forward with all the details included in any one JTC Scenario, but did select elements from two scenarios for further consideration. For example, the Work Group's decision to not pursue a loan meant JTC Scenarios 4-6 would not be adopted as policy solutions without changes. But, the Work Group did advance other elements of scenarios 5 and 6 for further consideration. Below is summary of Work Group feedback on each scenario.

- JTC Scenario 1: The \$58 million deferred sales tax is repaid by non-toll revenues, FY 2019-2028
 - Not pursued as a policy solution
 - The Work Group opted against this scenario because the Legislature already provided a near-term fix with deferral of repayment until FY 2032, and this scenario alone would not meet the objective of no toll rate increases.



- The Work Group sought and was provided clarification to make clear that repayment can occur prior to FY 2032, as funds are available.
- JTC Scenario 2: Effect on tolls of a 5% cut in toll operations and vendor costs
 - Not pursued as a policy solution, but pursuit of cost savings included as additional recommendation.
 - The Work Group opted against this scenario as it alone would not meet the objective of no toll rate increases.
 - While not pursuing as a policy solution, the Work Group sought to include pursuit of cost savings as an additional recommendation that could support toll payer relief.
- JTC Scenario 3: Effect on tolls if a non-toll revenue source pays preservation (R&R) costs for the new bridge.
 - Not pursued as a policy solution, but use of non-toll revenue for R&R costs included as an additional recommendation.
 - The Work Group opted against this scenario as it alone would not meet the objective of no toll rate increases, no provide a path for long-term toll payer relief.
 - The Work Group opted to include use of non-toll revenue for R&R costs, however, because it would support toll payer relief during the next 1-2 biennium when R&R costs are a primary driver of increased financial obligations. In addition, non-toll revenue from the TNB account's capital balance has funded R&R costs since opening. Toll revenue is scheduled to pay part of these costs beginning in FY 2020, and all R&R costs thereafter.
- JTC Scenario 4: Tolls only pay debt service effect on tolls and the revenue source that pays the rest of the facility's costs.
 - o Partially pursued as a policy solution, but not included as a recommended policy solution
 - The Work Group opted against this scenario because having tolls pay only debt service would be counter to their identified problem statement of escalating debt service costs, and the resulting \$288 million (FY 2020 – FY 2031) in funding would exceed funding necessary to maintain current toll rates.
 - The Work Group did pursue assessment of funding amounts needed to cover categories of TNB costs.
- JTC Scenario 5: Loan to keep blended toll no higher than \$6.00, with loan repaid by toll payers beginning in 2031.
 - o Partially included as an element of a recommended policy solution
- The Work Group pursued a core element of this scenario: seeking non-toll revenues to maintain a specific toll rate target. However, instead of targeting a blended toll rate of no greater than \$6.00, the Work Group sought to maintain rates at the current (\$5.24) blended toll rate of \$5.24. The Work Group also sought these non-toll revenues as shared costs instead of as a loan. JTC Scenario 6: Loan to offset effect of increasing debt service, with loan repaid by toll payers beginning in 2031.
 - Partially included as the primary element of a recommended policy solution
 - The Work Group pursued a core element of this scenario: seeking non-toll revenues to offset the effect of increasing debt service. However, the Work Group sought these nontoll revenues as shared costs instead of as a loan.
- JTC Scenario 7: Rely on only toll rate increases to meet revenue needs.



- Not pursued as a policy solution
- The Work Group did not pursue this scenario as it would produce results counter to the Work Group's legislative directive to provide policy solutions that result in long-term toll payer relief.

New Work Group Scenarios

The Work Group's consideration of new scenarios began with the preferred elements of the JTC Scenarios described above. The Work Group considered total remaining costs for possible new scenarios, and costs over the first two biennium (FY 2020 – 2023). Additional consideration and assessment was given to pairing possible scenarios with a recommended toll rate increase to reduce the size of the funding request, but the Work Group would later rule out this option.

Below is a summary of the considerations:

Scenario A: Funding Non-Debt Service Costs

The Work Group assessed this scenario as it could support a funding request sufficient to keep toll rates at current (FY 2018) toll rates. This would be true for funding all remaining non-debt service costs (FY 2019 – FY 2031) at ~\$250 million, or for funding all remaining Tolling O&M costs at ~194 million. Though the Work Group did not advance this scenario because it did not align with the identified problem statement of the increasing debt service costs, it did include funding or reduction of particular TNB costs

as recommended additional considerations for supporting toll payer relief.

<u>Scenario B: Funding to Keep Toll Rates at Current Levels</u> (FY 2018)

The Work Group assessed keeping toll rates at current levels (FY 2018) as a means to directly address the Work Group's legislative direction of providing long-term toll payer relief from increasing toll rates. However, this scenario does not directly align with the problem statement of increasing debt service costs. The total funding amount is also subject to change with updates to traffic & revenue forecasts.

Funding Needs to Maintain Current Toll Rates		
Biennium	Funding Need	
17-19 Biennium	(No Rate Increase Necessary)	
19-21 Biennium	\$25,990,125	
21-23 Biennium	\$16,267,021	
23-25 Biennium	\$22,235,942	
25-27 Biennium	\$20,561,511	
27-29 Biennium	\$28,842,292	
29-31 Biennium	\$6,813,236	
31-33 Biennium	(No Rate Increase Necessary)	
1st 4 years	\$42,257,147	
1st 6 years	\$64,493,089	
Total	\$120,710,128	

As shown in Figure 22, this option would require total Figure 22 funding of about \$120.7 million or \$42.6 million over the first two biennium.

Scenario C: Funding to Offset Future Debt Service Increases

The Work Group assessed funding to offset future debt service increases as it directly aligns with the problem statement. Also, at \$125 million, the funding would be sufficient to provide long-term toll payer relief from increasing toll rates. However, requesting funding to just offset debt service increases would result in additional funding needs through FY 2021 when annual net revenue needs exceed the annual debt service increases.

Based on these considerations, the Work Group developed a hybrid of Scenarios B & C, and implementation options:



Scenario D: Provide Non-Toll Revenue to Offset Future Debt Service Increases, While Enabling Toll Rates to Stay at Current Levels (FY 2018)

The Work Group identified this scenario to provide a long-term plan for addressing future debt service increases while keeping toll rates at current rates. The result was a scenario requesting up to \$125 million to offset future debt service increases, but allocated across the remaining years of tolling at levels that keep toll rates at current levels (FY 2018). This scenario directly addresses both the Work Group's problem statement, and the legislative direction to provide long-term toll payer relief from increasing toll rates.

As noted, based on current forecasts and assumed Commission policies for the TNB account sufficiency, the projected funding need to maintain current toll rates is less than the full \$125 million (\$120.7 million). However, the Work Group requests up to the full \$125 million in alignment with the costs of the remaining debt service increases, and in recognizing the potential for increases in funding needs over currently projected values.

Implementation Considerations for Scenarios

Having identified Scenario D to address the Work Group's problem statement and the Work Group's legislative direction, the Work Group sought to identify implementation options for the scenario. The Work Group identified the following options:

- Option 1: Full funding of the \$125 million by the end of the first biennium (2019-2021 biennium). This may include partial funding allocated during the 2018 legislative session for the 2017-2019 biennium.
- Option 2: Full funding for the 2017-2019 biennium, paired with guidance that supports continued allocation of necessary funds for meeting the Work Group's intent.

The Work Group advanced and prioritized these implementation options as preferred and prioritized policy solutions, as described in the recommendations section of this report.



Recommendations

The TNB Work Group recommendations follow from the established problem statement and objectives. They are also consistent with the mission and intent for the Work Group established by the Legislature. Included are two funding recommendation options that achieve the preferred \$125 million funding scenario, as well as policy bill suggestions that would establish legislative intent for the funding. In addition, the recommendations include options to support cost reduction and toll payer relief.

Funding Recommendations

<u>Funding Option 1</u>: Provide \$125 million in the 2018 or 2019 legislative session to fund debt service increases for FY 2019 – FY 2030.

Option 1 provides for the full request of \$125 million by the 2019 legislative session. This may include funding during the 2018 or 2019 session, or both.

This commitment of funds would ensure the Legislature fully addresses the problem statement of increasing debt service costs. At currently forecasted traffic and revenue for the TNB, it would also provide for maintaining current toll rates on the facility with about a \$4.3 million funding cushion.

Full funding could be accompanied by policy direction on the use of these funds, but this step may not be required.

This scenario does not direct whether the Legislature should deposit this lump sum of \$125 million into the TNB account, or otherwise set aside for payment of TNB cost, such as on the state's transportation project list.

A benefit of providing a \$125 million lump sum to the TNB account, or other fund dedicated for paying TNB costs, could be the additional interest earnings for the account that could be attributed to paying the costs, though minimal at about 1%.

The Work Group recognizes the challenges of identifying \$125 million in available funding to dedicate for this purpose by the 2019 legislative session. However, the potential to lock-in this funding in support of addressing this inequity for TNB toll payers makes this the Work Group's top preference as a funding policy solution.

<u>Funding Option 2</u>: Plan for biennial budget provisos totaling up to \$125 million over the remaining term of the bonds.

Option 2 addresses the problem statement with biennial funding totaling up to \$125 million over the remaining term of the debt service. The Work Group requests that such funding be distributed at levels projected to maintain current (FY 2018) toll rates, while providing for the TNB account's sufficiency. For example, funding needs for the next two biennia are projected to be:

- o ~\$26.0 million for the 19-21 biennium (FY 2020 FY 2021)
 - Includes ~25.2 million to address net revenue needs, plus an additional
 ~\$800,000 to meet TNB account sufficient minimum balance requirements.
- ~\$16.3 million for the 21-23 biennium (FY 2022 FY 2023)



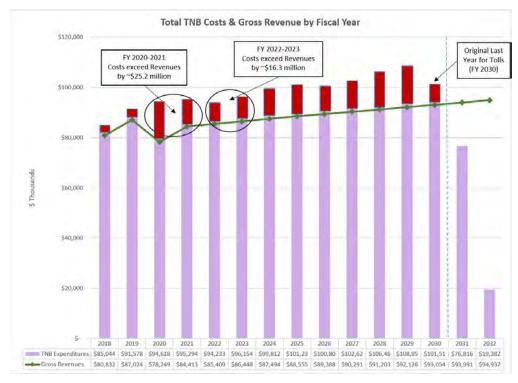


Figure 23

In conjunction with funding for the next 1-2 biennia, the Work Group requests that the Legislature pass a policy bill to support continued action by future Legislatures, as described in the policy bill options section below.

Additional Considerations to Support Cost Reduction and Toll Payer Relief

In the course of determining funding recommendations, the TNB Work Group identified several actions for further consideration that would not fully address the problem statement and objectives, but would support cost reduction and toll payer relief. These considerations are described below.

Motor Vehicle Fund Loan Forgiveness

The Legislature has twice loaned funds to the TNB account from the Motor Vehicle Fund. This includes:

- \$5.3 million loan provided in 2007 to help cover initial operating expenses and to establish
 reserves. This loan is being repaid from the TNB account on a biennial basis using TNB Civil
 Penalty revenues. Forgiving the remaining \$3.4 million of this loan would enable use of those
 civil penalty revenues for other costs that would otherwise have to be covered with toll
 revenues.
- \$5.0 million bridge loan in 2017 for FY 2019, with repayment in FY 2020. The intent is to provide
 for sufficient funds to enable no toll rate increase in FY 2019. Forgiving the scheduled
 repayment of this loan in FY 2020 could be a part of providing the \$26.0 million projected to be
 needed during the 19-21 biennium for keeping current toll rates.



Use of Additional Bridge Loans to Support TNB Account Sufficiency

Similar to the \$5.0 million loan provided for FY 2019, the Work Group asks the Legislature to consider additional bridge loans, as necessary to support TNB account sufficiency. As a bridge loan, repayment could be scheduled for when the fund balance is expected to be sufficient, or delayed until repayment of the deferred sales tax in FY 2031-2032. Such a loan is not projected to be necessary if provided the \$125 million in funding. However, this could remain a tool for addressing temporary shortfalls in the future, such as resulting from lower than projected traffic levels.

Use of Non-Toll Revenue for TNB Repair & Replacement Costs

TNB repair & replacement costs are currently paid from remaining motor vehicle funds initially provided for TNB capital costs. These funds are projected to be depleted in FY 2020, during which TNB toll revenues are also projected to pay a portion of repair & replacement costs. Dedicating motor vehicle funds as the source of future TNB repair & replacement costs could provide about \$23.4 million of the \$125 million funding request, including \$14.4 million of the \$26.0 million needed during the 19-21 biennium.

<u>Pro-Rate or Defer Facility Repair & Replacement Costs and Customer Service Center Procurement Costs</u> Scheduled for FY 2027 – FY 2030

Another consideration for reducing TNB repair & replacement costs would be to pro-rate about \$6 million in facility repair & replacement costs for paving and bridge repair scheduled for FY 2027 – FY 2030. With TNB tolls set to expire no later than FY 2032, the Work Group asks the Legislature to consider pro-rating toll revenue support for the 3-6 years remaining for tolls on the facility when the costs are scheduled to be incurred. Deferral of such costs until after tolling expires, as possible, may be another option for shifting costs to non-toll revenue sources.

TNB toll revenue is scheduled to contribute about \$5.6 million to system customer service center procurement costs in FY 2028-2029. As with customer service center procurement costs for FY 2017-2019, this is TNB's portion of the estimated total costs, as distributed to each facility by the amount of annual transactions. Similar to the facility R&R costs, the Work Group asks the Legislature to consider pro-rating toll revenue support for the 5-6 years remaining for tolls on the facility when the costs are scheduled to be incurred.

Assessment of Toll Vendor and O&M Costs to Identify Opportunities for Savings

The Work Group requests the Legislature direct periodic assessment of WSDOT toll vendor and tolling operations and maintenance costs related to the TNB facility to identify opportunities for savings. Assessment should include identifying possible reductions in the cost to collect toll transactions, and of either phasing out or improving customer payment options for toll booth transactions.

Possible Elements of Policy Bill to Establish Long-term Legislative Intent

The Work Group intends one or both of the following policy bill options be paired with either of the recommended funding options.



Policy Bill Option 1: Establish legislative intent for future funding that fully addresses the \$125 million in debt service increases, while maintaining current (FY 2018) toll rates.

While the Legislature cannot commit funding in future budgets, a policy bill can establish legislative intent for use of future funds. This policy bill would establish legislative intent in support of fully funding the \$125 million in debt service increases, with the funds distributed across biennia as necessary for maintaining current (FY 2018) toll rates.

This is the Work Group's preferred policy bill option, but providing the \$125 million as a lump sum (Funding Option 1) would make such a policy bill optional.

Policy Bill Option 2: Require biennial mandatory reporting to the Legislature on TNB funding needs from the Commission.

The intent of this policy bill would be to serve as a tool for on-going identification and awareness of TNB funding needs. While not a statement of legislative intent to support full funding for the Work Group's funding recommendations, this policy bill would support the capacity to secure future funding.

The Legislature could pair this policy bill with either funding option, but would particularly add value for a biennial funding approach (Funding Option 2).



Appendix 1: Detailed Analysis Charts

The tables below provide additional details on charts provided in the text of the report.

Note: Projected costs and revenues are as modeled with the scenario estimating tool used for this study. Projections may differ from official WSDOT forecasts and financial plan for the TNB. Supplementary materials on the assumptions for modeling with the estimating tool are available on request from the Commission.

Table 1: TNB Costs – Updated with November 2017 TNB Financial Plan

	Debt Service	Toll Vendor	Toll Operations	Bridge Insurance	Bridge Maintenance	Preservation (R&R)	Deferred Sales Tax	Total TNB Expenditures	
2019	72,802,300	7,251,790	8,823,651	1,500,000			-	176,621,949	
2019-21	145,202,950	14,874,576	11,018,827	3,076,739	1,371,200	14,368,000	-	189,912,292 190,386,891 201,051,218	
2021-23	157,319,450	15,476,151	11,464,463	3,201,172	1,426,656	1,499,000	-		
2023-25	167,665,200	16,179,439	11,985,447	3,346,644	1,491,488	383,000	-		
2025-27	167,577,450	16,867,604	12,495,228	3,488,988	1,554,926	1,449,000	-	203,433,195	
2027-29	172,678,150	17,551,593	18,591,878	3,630,468	1,617,978	1,347,000	-	215,417,067	
2029-31	79,660,000	18,272,705	13,536,102	3,779,626	1,684,454	3,803,000	57,590,000	178,325,887	
2031-33	-	9,422,255	6,979,843	1,948,951	868,582	162,000	-	19,381,631	
FY 2019 - FY 2031	962,905,500	106,473,857	87,915,596	22,023,636	9,815,201	23,381,000	57,590,000	1,355,148,498	
TOTAL	962,905,500	115,896,112	94,895,439	23,972,587	10,683,783	23,543,000	57,590,000	1,374,530,130	

Table 2: TNB Debt Service Increases FY 2019-2030, Relative to FY 2018 by Fiscal Year

Fiscal Year	Debt Service Increases Relative to FY 2018
FY 2018	\$0
FY 2019	\$2,973,650
FY 2020	\$2,918,450
FY 2021	\$2,627,200
FY 2022	\$8,207,200
FY 2023	\$9,454,950
FY 2024	\$13,592,700
FY 2025	\$14,415,200
FY 2026	\$13,799,450
FY 2027	\$14,120,700
FY 2028	\$16,402,350
FY 2029	\$16,618,500
FY 2030	\$9,831,350
FY 2031	(No Debt Service)
FY 2032	(No Debt Service)
TOTAL	\$124,961,700



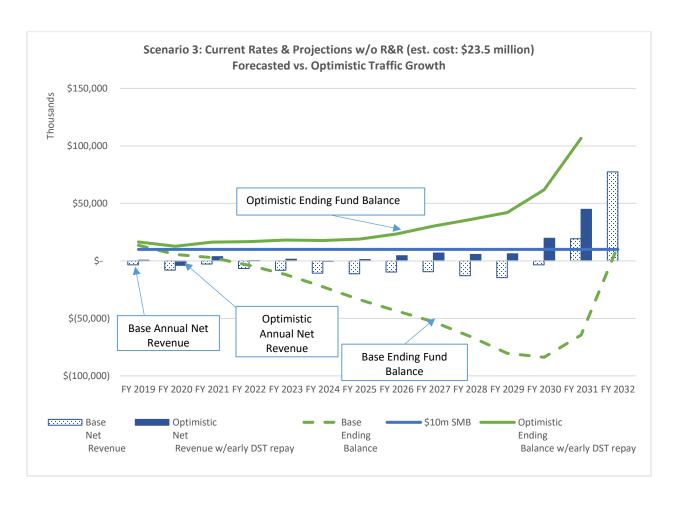
Table 3: TNB Funding Needs to Maintain Current Toll Rates by Fiscal Year

		Fund Sufficiency				
Fiscal Year	Net Revenue Needs	Needs	Total FY Need	Total Biennium Need		
2020	\$14,872,876	\$829,742	\$15,702,618			
2021	\$10,287,507	\$0	\$10,287,507	\$25,990,125		
2022	\$7,230,879	\$0	\$7,230,879			
2023	\$9,036,142	\$0	\$9,036,142	\$16,267,021		
2024	\$10,679,352	\$0	\$10,679,352			
2025	\$11,556,591	\$0	\$11,556,591	\$22,235,942		
2026	\$9,827,329	\$0	\$9,827,329			
2027	\$10,734,183	\$0	\$10,734,183	\$20,561,511		
2028	\$13,647,135	\$0	\$13,647,135			
2029	\$15,195,157	\$0	\$15,195,157	\$28,842,292		
2030	\$6,813,236	\$0	\$6,813,236	\$6,813,236		
Totals	\$119,880,386	\$829,742	\$120,710,128	\$120,710,128		

Appendix 2: Updated Joint Transportation Committee Scenario Charts

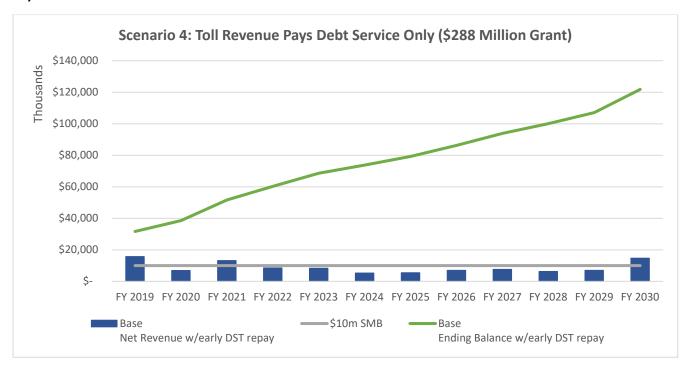
The Charts below supplement the information in Figure 13 on page 26 that provides an update of the JTC Scenario results. Charts were produced for the Work Group to supplement JTC Scenarios 3, 4, 6, & 7, and versions updated with information in the November 2017 TNB Financial Plan are included below. In each case, if the model produced an optimistic revenue forecast that enabled the scenario to meet funding obligations, then it was included in the chart. Supplementary charts with baseline, flat, optimistic and pessimistic projections are available on request from the Commission.

JTC Scenario 3: Non-toll Revenues Pay Preservation (R&R) Costs of \$24.5 million through 2032

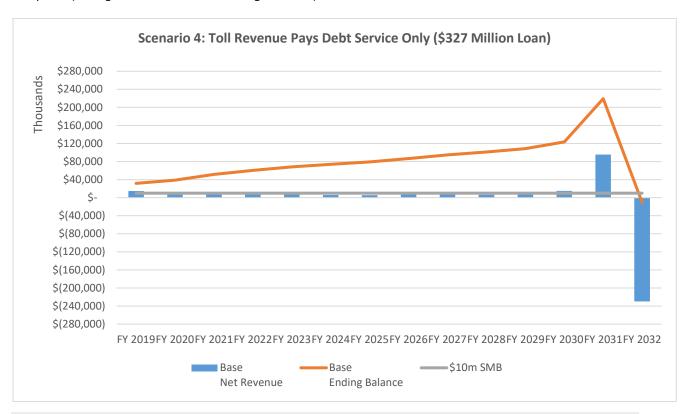




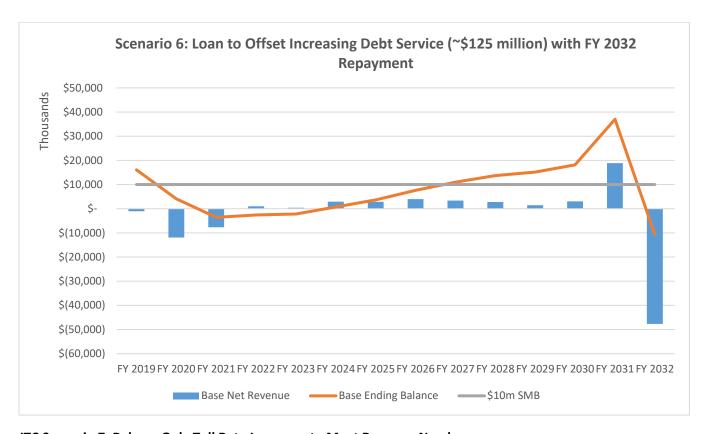
JTC Scenario 4: Tolls Only Pay Debt Service – Non-Toll Revenue from Other Source (ex: Motor Vehicle Account)
Pays All Other Costs



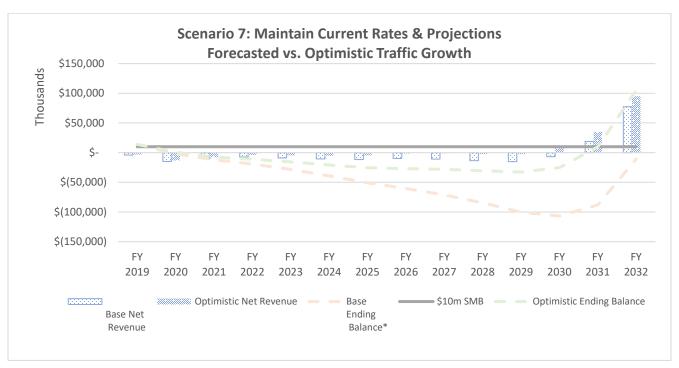
JTC Scenario 4: Tolls Only Pay Debt Service; Loan from Other Source (ex: Motor Vehicle Account) Pays Other Costs. Note that the loan is for a larger amount, as repayment requires (at least) two additional years of tolling compared (through FY 2032 instead of through FY 2030).



JTC Scenario 6: Level Debt Service Beginning in FY 2019; Loan from Other Source (ex.: Motor Vehicle Account); Repayment in FY 2032



JTC Scenario 7: Rely on Only Toll Rate Increases to Meet Revenue Needs.





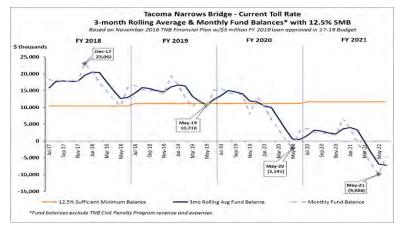
Appendix 3: Tacoma Narrows Bridge (TNB) – Sufficient Minimum Balance (SMB)

About the SMB

- The SMB is a minimum fund balance amount to protect the TNB account from a negative balance. This supports the financial interests of the state, taxpayers, and TNB toll payers.
- The Washington State Transportation Commission (WSTC) first implemented the SMB policy in March 2010.
- If the TNB fund balance falls below the SMB, the Commission must take steps to raise it. This may include a rate increase.
- WSTC established the SMB with input from Office of the Attorney General (OAG) and Office of the State Treasurer (OST).
 - The OAG determined that the SMB is a reasonable interpretation of the WSTC's duty to set tolls at a level sufficient to pay annual expenditures.
 - o The WSTC set the SMB at a rate lower than OST recommended.
- TNB Account's fund balance has once fallen below the SMB, in February 2012. The WSTC addressed this as part of a FY 2013 rate increase that took effect in June 2012.

Current SMB Amount

- The current SMB is about \$10.4m (FY 2018), which is about 12.5% of TNB account's total annual expenditures (~45 days).
- At this rate, the SMB is expected to gradually increase through FY 2029 to about \$13.3m.
- The WSTC uses a sufficiency test to determine SMB compliance. This is based on a



SMB value FY 2018 - FY 2021

- 3-month rolling average of the TNB fund balance (excluding Civil Penalty Program fund balance).
- Expenditures are not equally distributed across the year, so the rolling average reduces the impact of individual months on the test.

Lowering the SMB - Summary of Analysis & Options

- WSTC staff presented Commissioners with analysis and options for lowering the SMB in December 2016, followed by a presentation to the TNB Citizen Advisory Committee (CAC) in February 2017. WSTC staff also presented Commissioners' preliminary decision to the House and Senate transportation committees during the 2017 legislative session.
- As growing debt service and other annual costs cause the SMB to rise, interest from Commissioners, the CAC, and legislators regarding a lower SMB has increased.



• WSTC staff identified benefits and risks of a lower SMB for Commissioners' consideration:

Lower SMB Benefits	Lower SMB Risks				
 May lower or defer a toll rate increase if it enables the fund balance to remain above the SMB during a given year. Helps address concerns that the TNB fund balance has been growing too large. 	 May require higher toll rates in the future to meet escalating debt service commitments. Increases the likelihood a loss of revenue event will result in financial impacts for the state, taxpayers, and TNB toll ratepayers. 				

- Commissioners' preliminary choice in December 2016 was to implement a **\$10 million SMB** instead of the current 12.5% of total expenditures. A \$10 million SMB provides for the following:
 - o Ensures coverage for the TNB bridge insurance deductible (\$10 million)
 - o Maintains SMB at about the then-current value (FY 2017)
- Commissioners considered several other SMB options:
 - o 10% of Working Capital (~ 36 days)
 - 8.5% of Working Capital (~30 days)
 - o \$8 million



Appendix 4: Toll Equity Comparison: SR 16 TNB vs. SR 520

WSDOT has been asked to provide an equity comparison of the proportion of project costs funded by toll rate-payers for the second Tacoma Narrows Bridge (TNB) on SR 16 and the SR 520 Bridge Replacement and HOV Program. Both projects constructed a new bridge with added HOV lanes, requiring major corridor construction to extend the new HOV lanes throughout the corridor and connect with I-5. TNB also added an additional general purpose lane. The TNB Project was defined only to include the new bridge, which was fully funded by tolls. The SR 520 Program was defined to include the entire segment of SR 520 between I-5 and I-405, where each section was partially toll-funded.

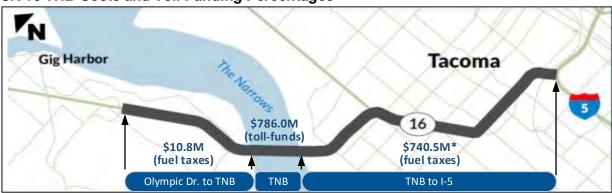
The portion of a project funded by tolls is determined by the Legislature, which has sole authority to authorize tolls and determine the extent of toll funding towards a project. In the State of Washington's history, it is not unusual to fully or partially fund very high cost projects such as bridges using toll funds.

SR 520 Costs and Toll Funding Percentages



*Includes Westside Planning, West Approach Bridge North and the "Rest of the West." Corridor development costs not shown.

SR 16 TNB Costs and Toll Funding Percentages



*Includes half the cost of I-5/SR 16 improvements. Corridor planning costs not shown.

Comparison of Project Costs Funded by Tolls and Fuel Taxes

Comparison Basis		SR 520 (\$1.203B toll financing)	SR 16 TNB (\$775 toll financing)				
•	Tolled Project	W of Lake Washington to I-405 including West Approach Bridge North (Tolls cover 48.7% of \$2.47B)	New bridge only (Tolls cover 98.6% of \$786M)				
•	Full Corridor Improvement	I-5 to I-405 (Tolls cover 26.7% of \$4.51B)	Olympic Dr. to I-5 (Tolls cover 51.1% of \$1.53B)				
•	New Bridge Only	Bridge plus pontoons only (Tolls cover 72% of \$1.67B)	New bridge only (Tolls cover 98.6% of \$786M)				

Basis of Equity Comparison

- To compare equity in an objective manner, it is reasonable to use a similar basis of comparison, since the definition of a tolled project is not consistent from corridor to corridor.
 Some are defined narrowly to a single facility, while others include a broader corridor.
- On SR 16, tolls paid for the 98.6% of the new bridge, while fuel taxes were used to fund all
 other corridor improvements needed to extend new bridge capacity throughout the corridor.
 If the same approach was take to funding SR 520, tolls would be sufficient to fund 72% of
 the cost of the new bridge, pontoons and landings, with fuel taxes used for all other corridor
 improvements.
- The new SR 16 Tacoma Narrows Bridge provides four lanes of travel and pedestrian path in a single direction, while the new SR 520 Floating Bridge provides three lanes of travel in both directions and pedestrian/bicycle path.

Toll Rates and Congestion

- TNB tolls are collected eastbound-only, while SR 520 tolls are collected both eastbound and westbound. Round trip tolls are \$5 for TNB customers with a *Good To Go!* Pass compared to \$8.60 (\$4.30 per direction) for SR 520 during peak periods and less at other times. The average FY 2017 SR 520 *Good To Go!* Pass toll rate is approximately \$3.22 per direction.
- The TNB project largely eliminated what had been persistent congestion in the SR 16 corridor. The SR 520 project reduced congestion in the corridor considerably, but congestion continues to occur during peak periods in part because corridor improvements are not yet complete.

Financing and Reserves

- The TNB project financing created a debt structure with debt service payments that increase over the life of bonds. In contrast, SR 520 debt service payments are structured to be relatively constant over the financing period.
- The Transportation Commission has required a balance be maintained in the TNB account that doesn't go below approximately \$10 million in any month, roughly equivalent to the funds needed to cover 45 days of revenue interruption (about 12.5% of annual expenses). This balance was funded early in the project. For SR 520, bond covenants require funds be



set aside in reserve accounts to cover operations, maintenance, repair and replacement of the bridge and tolling equipment, and for a revenue stabilization account. These balances total to just over \$50 Million in Fiscal Year 2017 (about 87% of total 2017 expenses).

- For both TNB and SR 520, all toll funds will be applied to project costs over the life of the financing. Whether reserves remain in the project account (as for TNB) or are sequestered in separate accounts (for SR 520), ultimately those funds will be applied towards the facility.
- Tolls must cover the routine facility operating and maintenance costs, plus periodic repair and replacement costs for the toll facility. For SR 16 tolls cover these costs for the new bridge only, while for SR 520 tolls must cover these costs for the full corridor from approximately the west end of Lake Washington to I-405.
- Under current law, TNB tolls will be phased out when all construction costs are repaid (debt service and sales tax) while SR 520 tolls may continue after construction costs are repaid.

Appendix 4: Washington State Toll Bridge History

Washington State Toll Bridge History	Bonds Sold	Bonds Sold w/Inflation#		Date Bridge Opened	Date Toll Removed	Length of Tolling	Toll	Rate*		I Rate lation^
Agate Pass Toll Bridge (SR 305)	\$1,650,000	\$16,554,933		October 1950	October 1951	1 yrs,0 mo	\$	0.35	\$	3.30
Biggs Rapids Bridge (US 97)	\$3,067,763	\$24,907,309		November 1962	February 1975	12 yrs,3 mo	\$	1.00	\$	4.70
Evergreen Point Bridge (SR 520) (Second Lake Washington Bridge)	\$34,505,218	\$277,411,837		August 1963	June 1979	15 yrs,10 mo	\$	0.35	\$	1.19
Fox Island Bridge (SR 303)	\$1,500,000	\$13,763,141		August 1954	May 1965	10 yrs,9 mo	\$	0.50	\$	3.93
Hood Canal; Puget Sound Ferry System (SR 104) (Sank)	\$26,750,000	\$220,816,329		August 1961	February 1979	17 yrs,6 mo	\$	1.50	\$	5.36
Hood Canal; Puget Sound Ferry System (SR 104) (Rebuilt)				October 1982	August 1985	2 yrs,10 mo	\$	2.00	\$	4.57
Lacey V. Murrow Memorial Bridge (I-90) (First Lake Washington Bridge)	\$9,823,557	\$173,188,608		July 1940	July 1949	9 yrs,0 mo	\$	0.25	\$	2.60
Longview (SR 433) (Built in 1930, Purchased in 1947)	\$3,751,622	\$39,571,435		December 1947	October 1965	17 yrs,10 mo	\$	0.75	\$	5.84
Port Washington Narrrows Bridge (SR 303)	\$4,962,368	\$42,234,714		November 1958	October 1972	13 yrs,11 mo	\$	0.10	\$	0.58
Spokane River Bridges (SR 2 / SR 395)	\$5,487,009	\$46,699,934		July 1958	July 1990	32 yrs,0 mo				
Tacoma Narrows Bridge (US 16) (Second Bridge)	\$16,076,823	\$161,303,471		October 1950	May 1965	14 yrs,7 mo	\$	0.50	\$	3.93
Vancouver/Portland Bridge (I-5)	\$13,943,346	\$117,456,748		January 1960	November 1966	6 yrs,10 mo	\$	0.20	\$	1.50
Vernita Toll Bridge (SR 24)	\$2,686,273	\$20,915,559		October 1965	December 1976	11 yrs,2 mo	\$	0.75	\$	3.18
#Inflation based on Date Bridge Opened. Inflated to September 2017 dollars. CPI inflation: https://data.bls.gov/cgi-bin/cpicalc.pl *Toll rate shown was amount in effect on the date the toll was removed Toll shown is for a vehicle and driver only. Toll rates vary by size of vehicle and number of occupants.										
^Based on "Toll Rate". Inflated to September 2017 dollars. CPI inflation: https://data.bls.gov/cgi- bin/cpicalc.pl										



Appendix 5: Senator Angel Letter Re: Deferred Sales Tax

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Committees: Chair – Financial Institutions & Insurance Law and Justice Local Government

Washington State Senate

Senator Jan Angel 26th Legislative District (360) 786-7650 203 Irv Newhouse Building PO Box 40426 Olympia, WA 98504-0426 E-mail: Jan,Angel@leg,wa.gov

August 4th, 2017

Dear Tacoma Narrows Bridge Refinance Work Group Members,

I wanted to follow up on some issues that arose at our first meeting and let you know my initial perspective on some of the options being discussed. As you are aware, I have been working on obtaining toll relief for the citizens in my district for 9 years. I am absolutely committed, as I know each of you are, to finding a solution to the escalating tolls and frankly ridiculous debt financing structure that has caused so much grief to our constituents.

It was for this reason that I was pleased to sponsor the amendment in the 2015 transportation revenue package that allowed for a postponement of sales tax from the construction of the bridge, thereby reducing a significant cost in the near term and allowing the Transportation Commission to avoid corresponding toll increases and granting significant relief to toll payers. The hard-negotiated amendment culminated in a handshake deal with those members responsible for the operating budget to forego those sales tax revenues in near term in order to get a transportation package and a hard end date as to when the tax would be paid. The statute underlying the amendment specifically allowed that the tax could be paid earlier. I wanted to be absolutely certain that there would be no effort to extend tolling and I wanted to preserve the opportunity that, if fiscally possible, the loans and sales tax debt could be retired early- and thus the tolls could end early as well.

Regarding the amendment, there was some discussion at the last meeting as to whether the late 2031 date specified in the amendment was an "error" because the toll debt service is currently scheduled to end in mid-2030 and it appears to create a gap. When the issue of the difference of years was raised by staff at the Transportation Commission back in 2015, we reviewed the options and felt a change was unnecessary because the underlying statute my amendment changed does not preclude an earlier payment date for the sales tax. If the financing plan allowed for the sales tax payment in 2030, for instance, it would be foolish to keep changing the year in the legislation.

Also to clarify, my amendment assumed that the toll revenues would be banked to pay off the deferred sales tax so that the tolls can end when all the obligations have been satisfied. The gap is more of a cushion, allowing tolls to be collected to satisfy the deferred sales tax obligation, while giving room in case the market or economy required additional time or funding to satisfy bond obligations. This would prevent a necessary spike in toll rates as the deferred sales tax obligation became due. The cushion also gives the state time to build up fund balance to pay off the deferred sales tax obligation as soon as it becomes due thus potentially shortening the time that tolls would need to be collected on the bridge. Filling the gap or cushion period of time with another loan may be feasible, but the ramifications need to be carefully considered to ensure that the toll payers don't have to pay over significantly longer

periods of time. My priorities have always been to keep the tolls as low as possible to meet the debt obligations and to end the tolling as soon as financially feasible.

Which brings me to some concerns about the scenarios being contemplated by our work group. As I understand it, the group is studying a scenario considered by the Joint Transportation Committee study published in early 2014 (prior to the passage of the 2015 transportation package and the adoption of my amendment) that would allow for a large bridge loan to forestall toll increases which would be repaid in the "gap" between the retirement of bond debt in mid-2030 and the sales tax repayment in late 2031. I am concerned about this for three reasons.

First as noted above, there is technically no "gap," because although the payment is clearly due on Dec. 31, 2031, the sales tax can be paid right after the debt service payments are completed in mid-2030 (or earlier) by the plain language of the underlying statute in my amendment if a cushion is not needed. Put another way, the "gap" could be used to build funds sufficient to initiate the acceleration of repayment, as contemplated in subsection 4 of the underlying statute in my 2015 amendment, with the objective of complete repayment by June 30, 2032, per WSDOT's financial plan. This would allow the tolls to be eliminated by date certain, whereas filling the gap with an additional obligation jeopardizes that certainty - something I oppose. Second, as noted above, other members of the legislature who agreed to a date of 2031 for the repayment of the sales tax to the general fund may regard this proposal as a breach of faith since interjecting another debt between the repayment of bonds and the repayment of the sales tax increases the risk that the sales tax may get pushed back. Finally, I am concerned that any added debt service could have the effect of extending tolls on the TNB in the same way that adding a Home Equity Loan and other debt may increase the time necessary to pay off your mortgage. I do not believe that our constituents would be willing to trade a few cents in toll reduction now for thousands of additional dollars from added years of tolling in the future. That is unsustainable from my perspective.

Despite my concerns I am willing to listen to the pros and cons of these scenarios. However, I am hopeful the group is willing to consider other options. I introduced a bill last session at the suggestion of Bruce Beckett that would have reduced the millions of dollars that the Commission holds in emergency reserves for the TNB to a more reasonable amount commensurate with risk and would apply the difference to forestalling toll increases. I am also interested in revisiting the proposal regarding a loan from the Motor Vehicle Account that may have new interest now that we have a new Treasurer. I am sure you will agree that given the magnitude of the problem, all reasonable options should be considered and pursued.

I hope this provides some clarification of our conversation at the first meeting and food for thought for future ones. I also wanted to let you know that I have requested that the next two work group meeting dates be changed to allow my personal attendance so that I can avoid conflict with Senate Law and Justice meetings which were subsequently scheduled for those dates.

I look forward to working with you on this important issue.

Sincerely,

Sen. Jan Angel

Appendix 6: Resource Links

TNB Work Group Meeting Materials:

http://www.wstc.wa.gov/WhatsNew/TacomaNarrowsBridgeRefinanceWorkgroup.htm

Work Group authorizing language included in the 2017-2019 biennium transportation budget (ESB 5096, Section 205(2))

http://lawfilesext.leg.wa.gov/biennium/2017-18/Pdf/Bills/Session%20Laws/Senate/5096.SL.pdf

2014 Joint Transportation Committee (JTC) report on internal refinance opportunities for the Tacoma Narrows bridge

http://leg.wa.gov/JTC/Documents/Studies/TNB/WEB_TNBFinalReportAppendix.pdf

Washington State Transportation Revenue Forecast Documents

https://www.ofm.wa.gov/budget/budget-instructions/transportation-revenue-information

Tacoma Narrows Bridge Tolling – WSDOT Page

http://www.wsdot.wa.gov/Tolling/TNBTolling/default.htm

